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OUTLINES OF ECONOMICS

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OUTLINES OF ECONOMICS

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Edwin A. Cottrell
11/08

BY

RICHARD T. ELY, PH.D., LL.D.

PROFESSOR OF POLITICAL ECONOMY IN THE UNIVERSITY OF WISCONSIN

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REVISED AND ENLARGED BY

THE AUTHOR

AND

THOMAS S. ADAMS, PH.D.

PROFESSOR OF POLITICAL ECONOMY IN THE UNIVERSITY
OF WISCONSIN

MAX O. LORENZ, PH.D.

ASSISTANT PROFESSOR OF POLITICAL ECONOMY IN THE UNIVERSITY
OF WISCONSIN; DEPUTY COMMISSIONER IN THE WISCONSIN
BUREAU OF LABOR AND INDUSTRIAL STATISTICS

ALLYN A. YOUNG, PH.D.

PROFESSOR OF ECONOMICS IN LELAND STANFORD JUNIOR
UNIVERSITY

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PREFACE

SINCE the first edition of the *Outlines of Economics* was published fifteen years ago, there has been considerable progress in economic discussion. In this revision an attempt has been made to include so much of the new thought as seems to have established itself. No chapters remain unaltered, most of them have been entirely rewritten, and some new ones have been added. But the plan of the former edition has been retained. This book differs from the *Elementary Principles of Economics*, published in 1904 by Ely and Wicker, in that it is a more advanced treatise, and intended primarily for college and university use; whereas the latter, although used in a number of higher institutions, is intended primarily for high schools.

Four persons have taken part in this revision, but a free interchange of criticism has, it is hoped, resulted in a unified product.

Numerous passages, amounting in the aggregate to many pages, have been printed in smaller type. Such are the passages which, either from their greater difficulty or from their subsidiary character, may best be omitted by a teacher pressed for time. Moreover, for classes in which the time limits are too narrow to permit careful study of the whole text, it may be found expedient to omit Book III, on Public Finance; while, on the other hand, some teachers may wish to take this Book up for independent study.

Considerable attention has been given to the questions at the close of each chapter, and an endeavor has been made to frame these so as to require a mastery of principles to answer them. Perusal of the text alone will not enable one to answer them all. In some cases it will be necessary to use the references to literature given at the close of chapters. There are also cases in which the correct answer must be a matter open to differences of opinion. It is hoped and believed that the questions will give rise to fruitful class discussions.

The aim of the authors has been to cover the entire field of economics, feeling that in this way they best serve the purposes of those students who are going to carry their studies further as well as those whose systematic school study of economics will end with the present treatise.

At certain points in the discussion of distribution, use has been made of the so-called "productivity theory." In order that there may be no misapprehension, it may be well to say here, what is repeated in the text, that in our view this theory has little or no ethical significance, and that its principal value is as an expeditious method of approaching the supply and demand theory, with which it is in complete harmony. When properly handled, it has the pedagogical virtue of leading the student directly to a study of the innumerable forces which condition supply and demand. But to regard the productivity theory as an end, is to mistake the problem for its solution; and to pass from this theory lightly to the immediate solution of those problems which the theory of distribution is designed to explain, is to offer, in place of scientific explanation, a mass of pretentious platitudes.

Valuable suggestions have been received from Dr. H. C. Taylor and from Dr. W. H. Price, both of the University of Wisconsin.

In conclusion, I wish to express my high appreciation of the work of my friends and colleagues in the revision of this book.

RICHARD T. ELY.

MADISON, WISCONSIN,
July, 1908.

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OUTLINES OF ECONOMICS

Seligman

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CHAPTER I

Scott

Ely

THE NATURE AND SCOPE OF ECONOMICS

Gide

THE most striking characteristics of the great field of knowledge the Outlines of which we attempt to sketch in the present volume are its rich diversity and spacious amplitude. Starting from psychology in its analysis of the human needs which explain or condition wealth, it traverses the entire field of social activities and institutions arising from man's efforts to supply his material needs. It touches on one side the physical sciences — from which it borrows some of its most fundamental principles; occupies joint territory at places with politics, ethics, and law, although their respective jurisdictions are in the main distinct; and forms at once the most fertile and most thoroughly developed province of the broad science of human society. Within its borders, if we may continue to compare the scientific possibilities of economics with the natural resources of an opulent territory, opportunity is offered for the exercise of every mental aptitude and every scientific method. The historian's gift is needed to unravel the past and trace the development of the industrial institutions whose present-day problems, in turn, offer indefinite scope for the studies of the more practical student with a taste for administration or business management. For the legal mind there are the subtle problems of property, inheritance, labor legislation, and corporation control; for the mathematically inclined, insurance and modern statistics; for students with practical political interests, the tariff, currency reform, and a score of important problems in which economics and politics are inextricably interwoven; for the philanthropic, unemployment, accident insurance, and a number of social problems growing out of the maladjustments of modern industry. Animating the entire subject, blended of course with the love of truth for truth's sake common to all sciences, is the persistent hope that by systematic study we may eventually abolish the material poverty which deadens and dwarfs the lives of millions of our fellows. Economics is a science, but something more than a science; a science shot through with the infinite variety of human life, calling not only for systematic, ordered thinking, but for human sympathy, imagination, and in an unusual degree for the saving grace of common sense.

To define such a subject adequately in a few sentences is manifestly impossible. It is frequently said that economics treats of man's efforts to earn a living, and this definition is not inaccurate if by "man" we understand "mankind," and if we fully appreciate that the individual's efforts to turn an honest penny's profit receive but little attention in comparison with the community's efforts to feed, clothe, and shelter itself. Satisfaction of social need, and not individual profit, is the objective point of the science. So, similarly, economics has been characterized as the philosophy of human industry; and this description is illuminating provided we interpret "industry" broadly enough. Even the old traditional definition, that economics is the science of wealth, is true enough if we clearly understand that there can be no wealth without man, and that the science which deals with wealth, so far from being a "gospel of mammon," necessarily begins and ends in the study of man. As we prefer to define it, however, economics is *the science which treats of those social phenomena that are due to the wealth-getting and wealth-using activities of man.*

Economics treats of Man. — The supreme importance of man in the study of wealth has not always been appreciated by those who have expounded the science. Too often they have considered man simply as a producer of wealth, the one "by whom" the necessaries, conveniences, and luxuries of life are created, whereas the infinitely greater truth is that man is the one "for whom" they are all produced. Of course no one denies this truth, but one might almost as well deny it as to leave it out of account. The result of such neglect is that men devise with great skill rules by which man may be made the best possible manufacturing machine. It sometimes quite escapes the notice of these persons that in making man the best possible manufacturing machine they may make him a very poor sort of a man; that in teaching him to supply his wants very bountifully they may prevent his developing and correcting those same wants. They forget that there are two kinds of poverty — one a lack of goods for the higher wants, the other a lack of wants for the higher goods. To become rich in goods while losing at the same time the power to profit by them is unfortunately one of the commonest retrogressions in human experience. We do not mean that the whole problem of human development is the subject of economics, but simply that manhood, rounded human development, is the goal of all social sciences, and none must consider their subject so narrowly as to exclude that object.

Another common mistake has been to regard as of chief importance the economic activities of one particular *class*, especially the employer. Other men were treated simply as "a factor in production." An English writer speaks of dear labor as one of the chief obstacles to England's economic prosperity. Could anything be more utterly an oversight of general human well-being? Dear labor should be the very *goal* of England's economic effort, for that means abundant supply of the wants of the great mass of her people; and the fact that labor is dear, so far from being an obstacle to prosperity, is the very proof and substance of that prosperity. A glance at history indicates that men have made these mistakes not only in theory but in practice. Industries have been developed to majestic proportions while man was sinking into deeper degradation; wealth has grown at the expense of that human *weal* in whose service it won its name.

Economics treats of Man in Society. — This is one of those truisms which only history can make real to us. As we pass from the savage and cannibal, up through all the stages of development, we find an ever-increasing interdependence among men. Man is least dependent when he wants least, cares least, has least, knows least, and is least. With every betterment of condition and character he is more dependent than before, more dependent and yet more free. The beginnings of barter are a confession of mutual need; the coining of money is a declaration of *dependence* to all men. We look with pride upon a century of progress, but that progress has consisted in little else than a growth of dependence, an ever-increasing departure from that rude kind of literal self-help in which each one does everything for himself. Our fathers drew water, each for himself, in "the moss-covered bucket," while our mothers dipped candles for the evening's light. If one was negligent, the rest did not suffer. To-day a network of pipes radiate from a common center to enter a thousand households. An engineer makes a blunder at the station, and thousands are in darkness or drought. Progress is a passage from independence to dependence, from distrust to confidence, from hostility to amity, from helplessness to helpfulness, while the great law of social solidarity gains ever-increasing importance. Our science, then, is interested primarily in man in his relations to others, and not in man by himself. Moreover, as a science which studies the present in order that it may predict and prepare for the future, and discovering that interdependence is the law of progress, it must not hesitate to shape its principles with reference to a solidarity which shall grow more rather than less, stronger rather than weaker.

Economics treats of Man as in Process of Development. — Few truths are more easily admitted or more persistently ignored than that of change in human life and condition. History makes it real. Man now wanders about by force of necessity and age-long habit, now starves rather than be moved from his home. Land is now free to all, now parceled out with well-nigh absolute right of individual possession. The seemingly eternal features of the social structure are gone in a few generations. Nothing so invalidates theories, laws, general principles, institutions, and enterprises as this great law of change of which we seldom take full account. Take, for instance, bequests. Nothing is commoner than for a man to leave a legacy under specified and detailed regulations, binding for all time. One leaves money to endow a religious service in a language which in a few generations no one understands; another founds a college to teach certain doctrines which in a century no one believes; and so on indefinitely. These and a thousand other laborious efforts of statesman, warrior, or philosopher quite lose their worth for the future because their authors assumed that the future would be like their present. Even the wages system and the division between capital and labor which seem rooted in the constitution of society are scarcely two centuries old as a general system. One must never forget in the study of economics that the phenomena with which it deals are pervaded by the spirit of life, moving forward or backward, progressing or decaying, under those influences which control the rise and fall of social institutions. The science is biological rather than mechanical.

The Laws with which Economics Deals. — The evolutionary character and complexity of economic phenomena, which account for much of the charm of the subject, endow it also with unusual difficulties. Conclusions true for one generation are invalid in the next. Terms and definitions appropriate to one stage of industry are misleading in a succeeding stage. Generalizations valid for one nation and government are inapplicable to another. Even those laws or uniformities which the science prizes as the finest product of its research are but statements of probabilities — declarations of what is most likely to occur for the mass of men in the long run under certain specified circumstances.

In no department of knowledge, consequently, is there greater need of temperate statement and of that humility of mind which is the surest safeguard against bigotry and dogmatism. No system of economics is applicable unchanged to all times and all places: the premises of the arguments change; the ingredients of nearly every problem present themselves in different proportions; and the conditions of almost every question vary from country to country and from generation to generation. The student must not expect rules of thumb by which he can decide offhand the economic problems of the particular city or country district in which he is for the moment interested. No general treatise on economics can authoritatively decide the practical problems of particular times and places; although the economist, before all other students, is forced to deal with practical problems. What such a treatise can do is to point out mistakes of logic common in the current discussions of economic questions, call attention to obscure factors — sometimes of great importance — which the practical man is likely to overlook, give solutions of typical problems which are likely to arise, and thus afford a training which will assist the student in solving practical problems for himself.

The peculiar and distinctive office of the economic scientist, however, is to emphasize the less tangible truths, the remoter consequences, the deeper and consequently less obvious forces of economic society. The impulses of the moment, the immediate demands of the hour, the present "fact" that stares us in the face (and sometimes blinds us), are not likely to lack vigorous champions; and to preserve the balance there is need of a craft of thinkers far enough removed from the battle to preserve the wider outlook, mindful of the lessons of the past, jealous for the rights of the future, insistent upon the less obvious truths. This is why economics so frequently appears to the practical man strained and academic. This impression arises from a difference of emphasis which in the main is as salutary as it is inevitable. The academic quality of the economist's work arises sometimes from ignorance, sometimes from pedantry, but more frequently from his courageous insistence upon the importance of the less tangible truths and the distant consequences of present action.

Is not economics, then, a science based upon natural law? The question is largely a verbal one. What do we mean by natural law? In the narrowest sense natural laws are the habits of nature which know absolutely no variation. Such are gravitation and chemical affinity; and the sciences based upon such laws — astronomy, physics, and chemistry — were the first to develop, and have attained a maximum degree of exactitude. The term "science" is sometimes used in a way to imply only sciences of this character. These sciences are more properly known as *exact* sciences, and they are characterized by the fact that the relations with which they deal can usually be expressed quantitatively.

When we come in contact with life, however, and especially with its higher forms, the exactness with which an astronomer predicts an eclipse or a chemist anticipates a reaction becomes impossible. Not that life is without laws; very far from it. There is, in the first place, the basis of physical nature, with its perfect regularity, upon which all life rests and to which it must conform. Then, too, there are laws governing life directly and pertaining to it. These form the subject of the group of sciences known as biology. We must remember, however, that all we can say of natural laws is that they are *habits*, not *compulsory necessities* of nature, and the laws of life seem to differ from those of inanimate nature in that they are not quite invariable habits. Variability seems to be inherent in life, increasing as life rises in the scale of development. It is often assumed, to be sure, that these laws are as invariable as any other, and that this seeming variability is only a greater complexity which we do not yet understand. However that may be, the result is the same for the present. The sciences of life are not exact in the sense we have defined. We must further note that in so far as a science deals with facts which seem to be governed by no invariable law, or whose law has not been discovered, it must content itself with a *description* of this part of its subject. Thus we have the term "descriptive science." We might better speak of the descriptive part of a science, for all sciences are able in part to reduce their facts to law.

What has been said of the sciences dealing with life applies to an even greater extent to those sciences which deal with man. It is perfectly true, of course, that within certain limits man is governed by absolutely invariable laws. He is as much bound by gravitation as anything else, and if he falls over a precipice, we can predict the results as certainly as though a stone fell over. But, without entering the bog of discussion as to the nature of human freedom, we may safely assume, for practical purposes, that man is also, within certain limits, a law unto himself. Nowhere do we find an element of variability so great and so seemingly ultimate as here. We must remember, therefore, that the sciences which deal with man deal with a being who is modified by his environment, *but who has the power of modifying that environment by his own conscious effort.*

Let us consider very carefully what this means. It does not mean simply that man modifies his environment *because* he has been modified by it and so reacts upon it, just as things do when they come in contact. If we accept this view, we shall come to Herbert Spencer's theory of natural selection. The forces at work accomplish their own results, according to this theory, whether man will or will not, simply by natural action and reaction. This implies that man is modified by his environment, and that he in turn modifies that environment *without conscious effort.* This theory is based on an assumption that man has no power of *initiating* an influence, and consistently concludes that social development, like geological development, must be left to work itself out. Mr. Spencer, however, goes farther, and stoutly maintains that man, by conscious effort, especially by collective or state effort, not only does not help this development, but actually hinders it. In this the whole theory is abandoned, for it is plain that if man by conscious effort can hinder a process, he can help that process in the same way, if he only has enough wisdom and sense. These it is the purpose of science to give him.

In opposition to the theory of natural selection, or unconscious development, has been urged the theory of artificial selection, or conscious development. Ages of natural selection made of the potato a lean, watery, unpalatable tuber; a few years of artificial selection made it a valuable food product and a table delicacy. Compare the development of domestic animals in the last few years, under man's conscious guidance, with their slow and meager development in a state of nature. Man has precisely this power of consciously modifying the natural and artificial elements of his environment, and this power continually enlarges.

So, when we ask if economics deals with natural laws, we really ask whether this being, whose activity in a certain line we are studying, is governed by such laws. It we mean by this to ask whether his action is characterized by absolutely invariable habits, like the forces of physics, we must plainly answer, no. If man had no power of initiative, or, on the other hand, were so perfectly rational as to always do the wisest thing, there would be a regularity in his action which might perhaps form the basis of a complicated, but exact, science. As it is, all social sciences are approximate and partly descriptive. There is much in man's action which is exceedingly (though not perfectly) regular, and hence we have general, though apparently not invariable, laws. There is a part of his action, however, that seems as yet to be capricious, and we can only make note of it till we have more knowledge.

The laws of economics are not comparable to the laws of inanimate nature in invariability, but they are of very general applicability, and are wholly in line with the action and intent of nature, and are, in this sense, "natural." But the laws of economics are not natural laws in the sense in which the word is often used; namely, laws external to man and not at all the product of man. The laws of economics have been designated as social laws to distinguish them from those of physical science. Social laws describe tendencies, or regularities, which appear especially in the consideration of large masses of facts. Human mortality serves as an illustration. When and how a certain man, as A, will die, is proverbially uncertain; but when we speak of hundreds of thousands of lives, we can predict with such an approximation of accuracy that a vast business-like life insurance can be built upon the regularity of the action of death.

The foregoing discussion enables us to answer in a word the much-mooted question, "Is economics a science?" It is not an exact or mathematical science, though certain portions of the subject may possibly become so. It is an approximate and partially descriptive science, like all sciences dealing with man, or even with life. The inexactness of the social sciences is due to the very thing which gives them their supreme value, the nature of man and the greatness of their subject.

The Relation of Economics to other Sciences. — We have already referred briefly to the relations between economics and some of the other sciences, but the topic is one which requires fuller treatment. In one sense, economics may be said to be dependent upon practically every other science, since the discoveries in every field of knowledge almost inevitably react upon the industrial life of man. Modern chemistry, to take a single example, has revolutionized some industries, wholly created others, and, through the agency of the pure food laws, may claim most of the credit for entirely suppressing others. From psychology economics takes the axiomatic principles upon which the laws of value rest; from physical science the law of diminishing returns which plays such an important part in the theory of distribution; and from mathematics the methods by which to ascertain how insurance may be safely supplied against accidents, death, and loss by fire. But it is to the sister sciences dealing primarily with man that economics is most vitally related.

Man has been busy from the first in several lines of effort. He has talked, worshiped, fought, studied, and each of these lines of effort has developed its own faculties and institutions. For convenience we may arrange these in eight groups, as follows: language, art, education, religion, family life, society life, political life, economic life. Each of these is the subject of a science more or less developed. The group of society life — that is, the life of polite society, calls, parties, balls, and the like — has been studied but little, and we know few of its governing principles.[1] Language, on the other hand, is a science which has attained to very complete development. The rest lie scattered between these extremes.

A peculiar feature of these activities is that they are all of them *collective* activities, activities which one man cannot well carry on alone. This is obviously true of family and political life, language, and others, and on careful examination it proves to be true of the rest. It is now admitted, after many experiments, that art and even religion do not thrive in solitude. It would seem that if a man could do anything by himself, it would be to get a living; but our brief study of history impresses us with the insignificance of all such effort and the inevitable tendency of men to drift together in their economic activity. If it were possible for men to live in isolation, every one of the eight lines of effort we have mentioned would soon dwindle into insignificance or altogether cease. So these sciences are all of them social sciences; and as the sciences that deal with life are now grouped together under the name biology (science of life), so the social sciences are grouped under the title of sociology, or the science of society, although some sociologists do not define the word "sociology" in this broad sense of an all-embracing science of human association.

Economics, then, is a branch of sociology. We have already defined it as the science which treats of those social phenomena that are due to the wealth-getting and wealth-using activities of man. We may speak of the wealth-getting and wealth-using

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[1] An attempt to examine scientifically some, at least, of the phenomena of polite society has been made by a learned jurist, the late Professor Rudolph von Ihering, in his *Zweck im Recht*. *Cf.* also Veblen, *The Theory of the Leisure Class*.

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activities in all their relations as economic life or economy. Accordingly, economics is the science which deals with the economy of man. A useful distinction in language is thus made between economy, the life itself, and economics, the science dealing with that life. If this distinction could always be observed, much confusion would be avoided.

We have economies of various sorts: the economy of an individual, of a family, a tribe, a city, a state, or a nation, and we have, correspondingly, many economic units. The dominant unit in ancient Greece, for example, was the household, which included the family and all the slaves and other dependents. These lived together and formed a little group by themselves. The economic life of Greece meant, largely, a sum of the economic activities of these households, each of which strove to be sufficient unto itself. It is interesting to know that many a well-managed Southern plantation before the late Civil War endeavored to produce all the means of life on the plantation, and in this respect, as in others, resembled a Greek household. But as time has progressed, these old groups have been partially dissolved, and in many instances in modern times the individual, in his economic activity, constitutes a unit, although the family is still the prevalent economic unit. It is a natural outcome of industrial progress, as already explained, that the relations between these units have multiplied indefinitely in number and in importance. This is simply another way of describing the growing interdependence of men. Economics deals especially with the mutual relations of economies of all kinds, private and public. It is chiefly, if not exclusively, a science of human relations, and without these relations could not exist.

Because of the organic connection of these relations in their common origin, man, and because economics deals with the individual as he is, and not with an artificially simplified "economic man," it is impossible wholly to dissociate the social sciences, and particularly impossible to divorce economics completely from ethics and politics. This does not mean that these sciences are all one and cannot be profitably subdivided. On the contrary, because of the limitations of the human mind, they must be studied separately so far as is possible. Scientific progress, like industrial progress, comes largely through specialization and the division of labor. Man cannot profitably study things in general. What it does mean is that there is some territory common to all these sciences, and that occasionally the economist is forced to pass ethical judgment and to decide political questions. In the consideration of railway rates, for instance, the economist is not only compelled to pass judgment upon what is just and reasonable, but he discovers upon investigation that by common consent what is fair or reasonable is decided largely upon economic grounds. The same is true of the apportionment of taxes, in which subject ethical, legal, and economic questions are inextricably interwoven. Commercial policies, restrictive regulations, and sumptuary laws have been the very stuff and subject-matter of the science of economics from its very beginning. In analyzing the progress of the past or the conditions of the present, we are forced to pass judgment upon the success or failure of many laws and policies which are still in force or under active discussion. Many of these must be indorsed or repudiated either solely or largely upon economic grounds; and because of these facts, the economist cannot, even if he would, refrain from passing judgment upon laws and political policies. Nevertheless, as was stated before, economics does not undertake the complete and systematic study of law, ethics, and politics, and its conclusions must almost always be supplemented by non-economic considerations which the economist may not have taken into account.

In the preface to the first edition of his *Principles of Economics*, Professor Marshall seems to dissent from the views here expressed, maintaining that "the laws of economics are statements of tendencies expressed in the indicative mode and not ethical precepts in the imperative." But even this most cautious and consistent of economists cannot refrain from laying down ethical precepts in many parts of his work. On almost the very last page he declares that: "The most imperative duty of this generation is to provide for the young such opportunities as will both develop their higher nature, and make them efficient producers. And an essential condition to this end is long-continued freedom from mechanical toil; together with abundant leisure for school and for such kinds of play as strengthen and develop the character." [1]

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[1] Marshall, *Principles of Economics*, 5th ed., p. 720.

Principal Divisions of Economics. — This view of the inevitably practical character of economic science is carried out in the treatment of the subject in the following pages. The history and evolution of economic society, sketched in Book I, are followed, in Book II, by a discussion of the consumption, production, exchange and distribution of wealth. These subjects are treated in close connection with those illustrative economic problems of which the so-called "economic theory," at its best, is but a more comprehensive and consequently more abstract analysis. Book III has been reserved for the subject of public finance, which, in the opinion of the authors, constitutes as integral a part of economic science as the subjects of money or international trade. In Book IV is given a brief sketch of the history of economic thought.

QUESTIONS

1. What is the most essential characteristic of economics? Define economics.

2. Is man or goods the more prominent thing in economic study? Does economics teach the student how to get rich?

3. What determines ultimately whether a man is poor or not? What kinds of poverty are there?

4. What is meant by "dear labor"? Is it a good thing for society in general? for employers in general? for an individual employer?

5. What is the difference between natural and artificial selection? Which applies to human society?

6. Are practical ethical and political judgments the chief ends and products of economic science?

7. Is economics concerned with the negro question? asset currency? prohibition? anti-trust laws? race suicide? protection?

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CHAPTER II

THE CHARACTERISTICS OF THE PRESENT ECONOMIC SYSTEM

It is the object of the present chapter to give a descriptive survey of the fundamental institutions and forces of the existing economic order.

Our Environment. — Lying back of all of our economic activity is the fact that we live in an environment in which the things that we desire are not furnished spontaneously in unlimited quantities. Whether it be looked upon as due to the niggardliness of nature or to the insatiability of human wants, the fact is that, for the most part, the material things that we use must be economized. We must put forth effort and exercise self-denial in order to enjoy the good things of life. Those human arrangements which help to determine how much of effort, of self-denial, and of enjoyment is to fall to the lot of each of us are the characteristics to which we now turn our attention. There are, however, a number of social institutions which do not fall within the scope of the present chapter. We deal here only with the social conditions directly underlying our economic activity, which is but one aspect of our social life. We must leave to the sociologists and other students of society a discussion of such topics as the family, religion, morality, ceremonial institutions, and the nature of government, although, to be sure, these also have their effect upon the economic sphere and are in turn affected by it. In the present chapter also we omit a study of the economic significance of our physical environment, which receives independent treatment in books on economic geography.

Private Enterprise and State Activity. — We live in an age when private enterprise, for the most part, is relied upon to furnish us with the necessities and enjoyments of life. The cultivation of the soil, the exploitation of the mines, transportation, the various stages of manufacture, and the distribution of the finished product are all left mainly[1] to private initiative. The discovery of new processes, invention, and experimentation are carried on mostly by private individuals or corporations who take upon their own shoulders the risk of failure. The State, on the other hand, participates in this activity in a variety of ways. It maintains order, promotes the public health and safety, provides roads, and takes charge of some industries completely. In its educational institutions the State, through its agents, undertakes various experiments, and encourages the growth and diffusion of knowledge, an indispensable condition of continuous advancement of our economic life. The state university and the experiment farms may be mentioned, and also the large and extremely useful Department of Agriculture of the United States, with its annual expenditure now exceeding six million dollars. Certainly in the vast majority of the enterprises with which we are familiar, private and public activities are combined in varying proportions.

Let us take the case of an industry which is as nearly private, perhaps, as any we can find, — that of agriculture, — and notice the part which public activities play in securing the farmer's result. First, we may say that the farmer owns the farm that he cultivates; this is private property. But how comes it that the farm is his? Why does not a stronger man drive him off and take the farm himself? Plainly because the State protects him in the possession of the farm. When he bought the farm, he took his deed to a government official, who recorded it, and thus gave him an additional guarantee of possession. A neighbor's dog kills his sheep, and an appeal to the State compels the neighbor to redress the grievance. Another, far below, dams a river and backs the water up so that it overflows his land. Another appeal to the State removes the dam or secures compensation. When wheat is raised, the farmer hauls it to market by a road built, not by private, but by public, activity. The railway lowers the price of his wheat by a discriminating rate, and again government interferes in his behalf. But manifold and important as are the regulations of the government, State activity seems very much restricted when we reflect that it might extend over the entire industrial field. To-day the distinctive characteristic of our economic life is private, not public, enterprise.

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[1] This applies especially to the United States and England so far as transportation is concerned; it would scarcely hold true of the world as a whole.

Division of Labor and Exchange. — It is commonly taken for granted that every man should prepare himself for some special occupation, that one should plow while another builds or sings. Hardly any civilization seems possible without some industrial specialization, but our own age is peculiar on account of the extent to which this has been carried. The introduction of machinery and the development of large-scale production have split up so minutely the work of men that the products which they turn out are not only not of immediate use to themselves in most cases, but they are also useless to any one else until combined with the results of other men's labor, often performed years before or afterwards. It is a long and complicated process from the man who mines the ore which is to reappear in a steel plow, to the man who bakes the bread. The effects of this specialization of employment are far-reaching: —

(1) It implies the exchange of goods. If we produce things we do not need, we must find some one else who does want them and some one who has the things we desire. Money, banks, and transportation agencies could largely be dispensed with if each family produced for itself alone. There would be none of the complex problems that center about the question of how much each of us is to receive in exchange for his services. One of the striking characteristics of this process of exchange is the great extent to which it is automatic. There is no government official whose business it is to discover how much of each commodity will be needed, and to direct that that amount shall be produced.[1] Men are legally allowed to engage in almost any undertaking that attracts them, and yet we take it for granted that somehow things will get produced in the proper proportions. A hundred men are

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[1] The government does help, however, in collecting and publishing information, as in the case of crop reports.

set to work in a factory making nothing but hats, many more than they or their friends can use, but the manager has faith that heads will be found to wear them all. Farmers confidently proceed to raise wheat, never troubling themselves about the grinding and baking. Neither workmen nor employers in general know why wages are as they are. Men lend money or goods, now for one price, now for another, but few know why they demand interest or why the rate changes. These processes go on visibly before us, but the governing laws are hidden except to the careful investigator. In this respect they are like the laws of physiology. We eat and digest our food, but how many people know how or why digestion takes place? It is easy, however, to overemphasize this idea, for a great deal of our economic activity is conscious and volitional. When we decide to make a law or levy a tax, we do it consciously, considering arguments, and finally will the thing in question. Further, in the large business consolidations, much knowledge regarding the course of trade is obtained directly through special agents or reports and is made the basis of conscious action.

(2) Specialization of work and exchange of goods just referred to, necessarily implies mutual dependence. Instead of a number of distinct, self-sufficient units, we have a coherent society where one individual relies upon many others to complete his own one-sided economic activity. A strike of the street car employees, or of the teamsters, or the destruction of an electric lighting plant, would each send a shock of inconvenience through a community. A prolonged railway strike would be felt as a national misfortune. Indeed, this interdependence is international in its scope. England relies on other nations to send her food in exchange for her manufactured products, and many a German workman would be in distress if there should be a sudden failure in our cotton crop.

Economic Classes. — In part, also, the specialization of work is responsible for the division of society into classes, but only in part. The difference in the work of the carpenter, machinist, or railway brakeman does not result in the formation of classes of a higher and lower rank. On the other hand, the professional brain worker enjoys some social esteem that does not fall to the lot of the manual worker. But doubtless the most important basis of social classification is the possession of wealth. The power to spend freely, while not the only test, is to-day the most widely recognized test of social status, regret it as we may.

Private Property. — We proceed now to examine the foundation stones of this system of private enterprise. Private property is the most important of these.

The leading English writers of economic treatises have usually taken the institution of private property as something to be assumed as a starting point in their discussions. John Stuart Mill, indeed, made an excellent beginning in the discussion of property and inheritance in his *Principles of Political Economy*, but other English writers have not generally followed up his lead. It is to the merit of the German writers that they have critically examined these fundamental institutions in their economic bearings. The work of Professor Adolph Wagner may be mentioned especially in this connection.

For our present purpose we may define private property as the exclusive control over valuable things by private persons. It is to be distinguished from mere possession. The possessor has the use of the thing for the time being, but unless he is at the same time the owner, he is dependent upon the will of another for the use of it. Ownership implies the right of excluding other persons from the enjoyment of a thing. The exclusive right must be recognized and guaranteed effectively by third parties. If I defend my exclusive right of control over some valuable thing against your claim simply by the strength of my right arm, I have not thereby established the right of private property. My exclusive right of control must be recognized by others and must be maintained by them. Over against private property we have public property, and there are some things, such as air, which fall in neither of these categories. The sphere of private property at present includes, not only food, clothes, and other things of personal use, but it also includes the instruments of production — land, buildings, and machinery. In the most important productive processes the tools are in general not owned by the persons who use them. Hence our present wage system.

It may be said that property is the chief seat of social authority. As property carries with it the exclusive right to control things, others may have access to these things only on conditions named by their owners. If we look about us, we find men organized and acting together under direction for purposes of production. In a factory we find an organization of men like that of an army. We discover men moving here and there and performing arduous tasks in obedience to command. If we examine the nature of the authority which some thus exercise over others, we shall find that it resides in property. The law of the land to some extent establishes the authority of man over man; but where one man obeys another because the law in so many words tells him to do so, we find a hundred men obeying others because these others have the authority which resides in exclusive control over valuable things. Indirectly this latter sort of authority rests back upon the laws in so far as these are responsible for the establishment of property. But the chief seat of authority in society is based only indirectly upon the government; it rests immediately upon private property.

Inheritance. — Inheritance is often regarded as a necessary part of the right of private property, and it is true that the entire abolition of the right of inheritance would result in a great enlargement of the public sphere of property at the expense of the private sphere, unless gifts were made to accomplish the same object as the system of inheritance. But strictly speaking, we have here to do with two rights. Private property is an exclusive right of control, whereas inheritance is concerned with the transmission of this right from one generation to another.

As in the case of private property itself, the right of inheritance is not recognized ~~to-day~~ as an absolute one. Detailed regulations exist on our statute books regarding the descent of property where no will is made, and also regarding the making of wills, and there is an increasing tendency to limit the right of inheritance by taxation. Some features of the present law of inheritance well illustrate the tendency of institutions to persist after the conditions that gave rise to them have disappeared. The recognition which we give to the claims of very distant relatives to a share in an estate where there are no near relatives, and where no will has been made, had its origin at a time when blood relationship played a much more important part in society than it does at present.

Contract. — Scarcely second to the right of private property is the right of contract, for the maintenance of which we are equally dependent on the State. Some sort of contract lies at the basis of all associated activity. To secure the condition of such activity, it is necessary, first, that men should be allowed to bind themselves; and second, that they should be compelled to respect the agreement thus entered into. The entrance into a valid contract is ordinarily voluntary, but once entered into with due formality, the State will use its superior power to enforce it. To the anarchistic mind this seems oppressive, and it must be admitted that a state of society is conceivable in which the element of force would be removed from the idea of contract, but something else would have to be substituted to make the keeping of agreements the general rule. There are doubtless many people living to-day with whom the feeling of honor or fear of social disapprobation would be sufficient for the enforcement of contracts, just as these persons might not need the threat of a jail sentence to keep them from stealing.

The economic ties which hold men together in industrial society on their legal side are very generally contracts. The organization of an industrial corporation implies many contracts. Our property is acquired very largely through contract, and through contract we determine the conditions under which we do our work, such as the length of the working day. The continuity of our economic life rests upon contracts, which bind together past, present, and future. Still, all that we have by no means comes to us through contract. "Contract" does not exhaust the significance of parentage, home, and education, and much wealth changes hands through gifts and inheritance.

Vested Interests.[1] — A few words should be said about vested interests. Vested interests may be defined as pecuniary interests which are legally recognized to be such that they cannot be impaired by public action without indemnification. Vested interests generally arise through property and contract. Outside of property and contract, however, there may be vested interests. Leeds was compelled by a feudal arrangement to grind its corn, grain, and meal at the lord's mill till well on in the last century, and finally had to pay £13,000 to terminate this obligation. When Prussia bought the railways, the railway presidents were indemnified for the loss of their positions by large payments; in other words, their offices were looked upon as vested interests. England is the classic land of vested interests. An office in the army was until recently looked upon as such, and so was an appointment in the Established Church. It is generally held that saloon keepers in England have a vested interest in their business, so that they must be indemnified if their licenses are taken from them. Workingmen have frequently claimed that they have a vested interest in the advantages which their acquired skill gives them, and consequently that if through industrial changes this skill ceases to be of as great value as formerly, they ought to be indemnified and in some way their former income continued. This claim of the workingmen, however, unlike many other claims put forward in the name of vested interests, has not received recognition, either by Parliament or the courts. Vested interests, apart from property and contract, are of less significance in the United States than in most countries, but they may become of more significance in the future.

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[1] The term "vested rights" is also used.

Freedom.—The words "liberty" and "freedom" have given rise to some of the deepest philosophical discussions, but we may avoid confusion if we say that the freedom to do certain things is legally guaranteed at the present time, such as moving from one part of the country to another, choosing one's own occupation, and acquiring property. These, together with the absence of chattel slavery and imprisonment for debt, are characteristic features of the present economic order as distinguished from past conditions. The right to manufacture and sell what and when one pleases is a comparatively recent one. It has often been greatly limited by despotic governments, and the right has been made a matter of sale for the purpose of raising revenue. Most such limitations have been of the nature of abuses, and our own time has seen the abolition of an immense number of hampering and vexatious restrictions designed for plunder rather than for the promotion of private enterprise. So far as the absence of legal restrictions on the actions of individuals is concerned, the past century has been distinctively an age of liberty.

Restrictive laws, however, are not the only limitations on our freedom of action. The system of private property itself means that certain individuals in the community have power to command other people to work, and the lack of an income under our present régime implies the lack of the real freedom to do things. The cost of a railway ticket may be quite as effective as a legal barrier would be in preventing movement from one state to another. It is said that we are free to acquire unlimited property. True, the law does not expressly prohibit such acquisition, but as a matter of fact many persons do not acquire much property. Again, we say involuntary servitude, except as punishment for crime, has been abolished, yet men are compelled to work by the threat of economic distress, in most cases quite as effectively as by means of the slave-driver's whip, for the counterpart of legal freedom is the economic responsibility of the individual. "Sink or swim," says the State to the millions struggling for worldly goods. That is the end of the matter according to the *laissez-faire* theory. The modern State helps men to learn to swim. Again, the choice of an occupation is free according to the law, but we may find that a long and expensive course of training is necessary, or we may be compelled to conform to trades-union regulations, and always it is necessary to find some one who deems our services valuable. The right to establish enterprises is granted to all alike according to the law, but to-day it would be difficult and hazardous to embark upon the refining of oil or the manufacture of steel. Practically, the freedom to establish new enterprises has been growing less and less in this era of large-scale production.

Competition and Markets. — As a result of the legal conditions that have been mentioned, we find men engaged in many kinds of rivalry. Our economic society is often called "competitive" for this reason. But when this term is used, not all forms of rivalry are meant, for even if private property and free contract were abolished, some form of struggle might still persist. There might still be conflicts between races and nations, and the men of any single nation might still vie with one another to prove their superiority in the eyes of womankind or to gain positions of public honor and power. The kind of competition which is distinctive of the present economic order is the all-pervading endeavor to obtain the largest possible amount of wealth in exchange for commodities produced or services rendered. If we except the idlers, the parasites, and the cheaters, men are everywhere endeavoring to discover what other people want urgently, and then to satisfy that want in the most efficient manner possible. On the other hand, they attempt to give as little as possible of their own products in exchange for the things they themselves desire. Business competition thus has two sides: rivalry in rendering a service, and alertness in exacting a return. Each individual takes part in the competitive contest in two ways: first, as a seller of goods or services, in which case he finds that others are anxious to render the same service; and second, as a buyer of the things he wants, in which case he finds that these same things are sought after by other people.

The intensity of the competitive struggle is subject to a good deal of variation. At times it may be characterized as cut-throat, where the slashing of prices has for its object the elimination of one or more of the contestants. But the rivalry is not necessarily so fierce. In some lines of business many competitors may continue to exist side by side indefinitely, each competitor being confronted by the ever present threat that if his service becomes very poor, some other man will outstrip him. Various as may be the character of competition, now predatory, now a friendly rivalry, there is no resting place in the contest unless one secures some special privilege as a shelter. He who is energetic, and wins success in a certain line of business, must continue to defend himself from a host of imitators who are anxious to snatch his gains from him. Most of the competitors are successful in getting something, some more than others, but many fail altogether. These last, the inefficient, whether made so by sickness, by inherited weakness, or by lack of proper training, fall by the wayside and must be cared for by private charity or by the State. The process is cruel in many of its details, but there is also a beneficent aspect in the sifting out of the incompetent and in the encouragement of the strong.

Here, again, reference may be made to the automatic character of the present industrial system. It is through competition and bargaining in the market that a price is fixed, and it is to the variations in this price that business men look for indications as to what people want rather than to the reports of some government official, although such reports are of some assistance. Price is the universal barometer that indicates changes in the demand for goods of all kinds.

Competition has been spoken of as a struggle, a contest, accompanied by success and failure, elation and disappointment. But the State sets limits to the rivalry — it makes regulations and acts as an umpire to compel fair play. It attempts to eliminate fraud and brute force; it trains the rising generations for an entrance into the struggle by a system of free education; it insists that no person shall sacrifice the life and limb of another in the rush for wealth; and it protects children and women when they seem compelled to labor under unhealthful conditions. Those who fail entirely in the struggle it tries to rescue from suffering. In short, the State, as will be explained more fully in a later chapter, aims to raise the plane of competition, changing it from brutal warfare into a contest in which there are prizes for all, but in which the prizes are graded according to the energy and ability of the contestants.

Coöperation. — The statement that our age is one of competition is misleading if it gives the impression that every individual is continually struggling against all of his fellows. On the contrary, the achievements of modern industrial civilization would be impossible without a far-reaching coöperation between individuals. Employers and employees may quarrel and bargain about the wage contract, but when they have settled their relations for a week or a year, they become coöperators during that period in the conduct of the business enterprise in which they are engaged. Again, there is an unconscious coöperation between those who work upon a commodity in the different stages of the process from raw material to finished product. The division of labor itself necessarily implies coöperation. Competition merely determines the conditions on which the coöperation takes place. If these conditions could be determined in some other manner, it would be possible to conceive of the elimination of competition from our industrial system, but coöperation is so vital and fundamental that its elimination would mean a return to barbarism.

Monopoly. — Everywhere in the industrial field the tendency toward monopoly is present. Business men endeavor so far as possible to shelter themselves from the effects of the competitive struggle by means of some privilege, but if none is to be found, and if competition becomes very keen, they endeavor to combine with other business men. But while this attempt to escape competition is universal, it is only under certain conditions that it is at all likely to succeed. The success is least in agriculture and in the mercantile business, where new enterprises are started rather easily because no special privileges stand in the way and because no very large capital is required to work efficiently. It is greatest in mining and transportation, where special privileges are present and where large capital is required. Scarcely anywhere is it possible wholly to escape competition, and we are still warranted in speaking of the present era as a competitive rather than a monopolistic age.

Side by side with the growth of monopoly there is an increase in government interference in industry. The desire of the business man is to be uncontrolled, but wherever he succeeds in throwing off the control exercised by his competitors, he inevitably substitutes that of the government official.

Custom. — Custom plays an important part in our economic activity as well as in every other department of social life, although its sway is not so marked as in former ages or among primitive peoples. The custom of giving gratuities, or *tips*, to servants is in many places so strong as to have almost the force of law. Again, to-day much of our personal expenditure is controlled by what custom has declared to be proper rather than by any act of our own individual reason. Any attempt to lower wages which would make impossible the maintenance of a customary standard of living would be stubbornly resisted. Custom is the result of habit, and is continually broken into by our tendency to imitate a leader who proposes a new line of action. Recent events in the spelling reform movement afford an illustration. While custom may have its beneficent aspect in preventing hasty and impulsive changes, it frequently retards progress and causes our legislation and judicial decisions to lag behind industrial development.

Authority and Benevolence. — In the preceding pages frequent reference was made to the limitations upon the rights of private property, inheritance, contract, and freedom. Public authority may be looked upon as one of the forces governing the economic process. The conduct of private enterprises is continually being interfered with by State authority. Legal rates of interest are established, and "reasonable" railway charges are substituted for actual charges. The authoritative fixation of wages is a future possibility.

Benevolence, or the caritative principle, may be mentioned as another force in economic society, modifying and supplementing in many ways the work of competition.

QUESTIONS AND EXERCISES

1. Attempt to classify the leading occupations in your city with respect to the social prestige attaching to them.

2. Describe the property relations existing in the Amana Society, or in other communistic groups.

3. What regulations concerning the inheritance of property are in force in your state?

4. To what extent are gambling contracts valid?

5. Compare the legal freedom of workingmen to-day with the conditions described in the *Wealth of Nations*, Book I, Chap. X, Part II.

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CHAPTER III

THE EVOLUTION OF ECONOMIC SOCIETY

In the preceding chapter were described the fundamental institutions of the present economic order. Here a brief sketch will be given of the origin and development of these institutions. Such a study is advisable in a general survey of the field of political economy because many of the problems and proposed reforms which are met with raise questions as to the soundness of the very foundations of our present economic life, and these can only be understood when they are viewed as historical products.

The evolution of economic society is but one of many standpoints from which the development of mankind may be considered. The history of literature, the history of government, the history of religion, each treats of man in one line of his activities. Many thinkers have considered the economic activities of mankind as the fundamental factor in social progress, determining in the long run even our ethical and religious conceptions. Probably human life is too complex for any such simple explanation. The economic factor, however, is clearly of the most fundamental importance in the sense that the higher things in life cannot be cultivated if man's entire time is spent in getting a mere subsistence, so that economic progress, or gaining control over the forces of nature, must accompany general social advancement, at least for the mass of the community. Under primitive methods of production, only a select few can have this leisure time.

The Economic Stages. — Many attempts have been made to divide economic history into stages through which mankind passed in arriving at modern industrial civilization. These attempts have been the subject of lively criticism, but it appears that the classification which in the past has been most widely used is still, with some modifications, the most serviceable, and in the main, this will be followed in the present chapter.

The basis of this classification is the increasing power of man over nature. This is the fundamental fact in man's economic development, and his position in the scale of economic civilization is higher in proportion as this power over nature increases. Increasing control of nature is accompanied by changes in man himself, especially by a growth and diversification in his wants, so that we may say that economic civilization consists largely in wanting many things and in learning how to make and use them. From this standpoint economic history may be divided into the following stages:

I. Direct Appropriation. - Hunting
II. The Pastoral Stage.
III. The Agricultural Stage.
IV. The Handicraft Stage.
V. The Industrial Stage.

I. DIRECT APPROPRIATION

The economy of primitive man is characterized by finding things ready to use instead of making them. It is not intended to assert that the lowest examples of mankind that we know do absolutely nothing in the way of transforming the materials of nature for use. The lowest types know the use of fire and have rude tools, but, nevertheless, the farther back we go, the more direct do we find the reliance on nature. One cannot read descriptions of the Negritos, Veddahs, Fuegians, or native Australians without being impressed with the similarity between the economy of these peoples and that of the lower animals. But there are many tribes commonly regarded as savages that show a great advancement over those that have been mentioned. Among the North American Indians, for example, we find a rude sort of cultivation of the soil along with hunting and fishing. Such soil cultivation has been termed "hoe-culture," and is to be distinguished from agriculture with the aid of domesticated animals found in a later stage of development.

> This kind of agriculture is found in its highest state of development among the negroes of Africa. "The ground for cultivation," says Ratzel, "is cleared by means of fire, or with the hatchet or small ax. On the east coast a broad chopper with a spear-shaped blade and short handle is also used. The lance or spearhead has, in general, to serve many peaceful purposes. Larger trees are killed by barking. Thorny branches are placed as a border to the fields, under the shelter of which close, quick hedges gradually grow up. The ground is broken and cleared of weeds with a wooden spade sharpened to an edge at either end. Many peoples have hitherto not ventured to use iron tools, since they keep away the rain. When the ground has been got ready, somewhere about the beginning of the rainy season, the sower walks over the field, scraping a hole with his naked foot at every step, into which he lets some grains fall from his hand; the foot covers them up, and if the good witch doctor makes rain enough, and the bad one does not keep it back, there is nothing more to be done until harvest, unless to hoe the weeds once. . . . To the present day the plow is practically strange to them."[1]

The following characterization of the economy of primitive man applies with varying force to the many tribes that may be placed in this first stage.

Characteristics of Primitive Man. — The range of wants is narrow, as the savage is almost completely satisfied if he obtains mere subsistence of the rudest sort. In the satisfaction of these few wants he is, according to our modern standards, remarkably inefficient. From the best natural resources he manages to get a very poor living, depending as he does largely on the spontaneous products of nature. Magic and ritual are very generally relied upon as aids to wealth production. Primitive man is improvident, for he does not feel keenly the uncertainties of the future, and fails to make provision for them. Hence we find him subjected to alternate periods of starvation and plenty. Only a scanty population is possible in this stage, as a tribe must have a large expanse of territory from which to draw its sustenance. The place of abode is easily changed, and warfare with neighboring tribes frequent. Cannibalism is found among many primitive peoples. Private property in land is absent, although the beginning of the institution of ownership appears in the recognition of the individual's right to articles of personal use. There is little division of labor. What one man can do, all can do. The soil cultivation by the women and the specialized work of the medicine man are exceptions. As each tribe is economically self-sufficient, the development of trade is slight. The beginning of slavery may be observed, but this institution plays no important part in the economy of primitive man, except among the most advanced tribes.

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[1] Ratzel, *History of Mankind*, trans. by A. J. Butler, Vol. II, pp. 380–382.

II. The Pastoral Stage

In the older accounts of economic evolution, the impression is given that hunting peoples learned to domesticate animals and then led a pastoral life, later learning to subdue the vegetable kingdom, and then becoming agriculturalists. This view is not accurate. It is possible that the domestication of animals was developed in regions where considerable progress had been made in hoe-culture. As this knowledge spread, certain tribes became and remained pastoral nomads in regions where agriculture was impossible. But whatever the actual steps may have been, the pastoral peoples represent a type of culture that is lower than that of the agricultural stage (as distinguished from hoe-culture), and higher than that of the hunter. Within this stage also are classed together tribes of varying advancement. Illustrations of existing pastoral life are found in the tribes of central Asia, many of the Arabian and African tribes, and the Todas of India. Attempts have been made to trace the pastoral stage in the early history of the Hebrews, Germans, Greeks, and Britons.

Characteristics of Pastoral Peoples. — Some marked features of the first stage are found also among pastoral peoples. A fixed abode is not possible, as food must be found for the herds and flocks. Cities do not develop. Moreover, while the land will now support many more inhabitants per square mile than before, much land is still needed for pasture, and there is frequent collision and warfare between neighboring tribes. It follows also that there is very little private ownership of land among these peoples. Tribes as a whole lay claim to certain districts and try to keep other tribes from pasturing on them. In this stage there are frequently individual accumulations of wealth, consisting mostly of herds or flocks, and thus the contrast between rich and poor makes its appearance. Customary rules regarding the inheritance of wealth are recognized. But this early wealth does not produce commerce to any considerable extent, simply because there is little division of labor either between localities or within the tribe.

III. The Agricultural Stage

In this stage there is an enormous increase in man's power over nature. The production of wealth is increased especially by the use of animal power in cultivating the soil. One result is to increase population. Land which under the more primitive methods of production would give a scanty support to a small tribe for a part of the year will now maintain a whole community with a fixed abode. It is necessary for human development that men should live in definite places and have homes and a country. This results in new relations between men, new duties, new arts, and new possibilities. The beginning of the institution of private ownership in land falls within this stage, although it is difficult to trace the actual steps in the process.

A most important characteristic of this period is slavery. Slavery begins long before improved agriculture, but it now attains its full magnitude as an institution. There have been many discussions as to whether slavery is right or wrong. It is both. There is a time in human development when slavery represents a step in human progress. The slavery of the early period we are now considering was inevitable, and is not to be judged by modern standards. We now know that free labor is better than slave labor, especially in the later stages of industrial development; but, inasmuch as primitive man is induced with difficulty to work at all, slave labor is a great improvement on free idleness.

Commercial intercourse is still comparatively slight in this stage. Fixed residence develops village communities, and these are economically self-sufficient. They produce the things that they consume, and as a rule have not surplus products to dispose of to others. Hence money does not at this time perform important functions in the life of every day. The economic condition of Europe during the middle ages before the growth of cities illustrates the agricultural stage.

The Manorial Economy in England. — England was almost wholly agricultural for three centuries following the Norman Conquest. In the thirteenth century the population for the most part lived in villages or manors, each controlled by a lord to whom the rest of the inhabitants were bound by customary rules to render certain assistance in the cultivation of the lord's land. The villagers were of various classes, according to the amount of land which they held and according to the services which they were required to perform. The land of each tenant was not a compact area, but was composed of strips scattered in the three great fields into which the arable land was divided for purposes of crop rotation.

Some handicraftsmen were also found upon the estate, but they do not occupy an important place in the economy of the village. For the most part, they were probably slaves or household servants. Slaves in England constituted at the time of the Conquest about nine per cent of the population, but "in some of the eastern and midland shires do not appear at all, or fall to a percentage of four or five," while they rise to as much as twenty-four per cent in other parts of the country. "We cannot but explain this by the supposition that in the later stages of the English conquest a greater number of the British cultivators were spared, so that in these districts slaves came to form a considerable part of the rural population. Absolute slavery, however, disappeared in less than a century after the Conquest, and the *servi* became customary holders of small plots, like the cotters elsewhere, but on more onerous conditions." [1]

While these manors were largely self-sufficient in their economic life, there was, to be sure, some trade. England exported raw products to the continent and received back some of the finer forms of manufacture. But the ordinary needs of the very frugal life which the tenants had to live were supplied by products of the village itself. During the centuries following the Norman Conquest important changes took place in the manorial system: (1) a rapid growth in the number of free tenants; (2) the commutation of customary services into fixed payments in money or kind; and (3) the appearance of a class of agricultural laborers dependent on the wages which they received. In contrasting the manorial economy with the village of the present day, Professor W. J. Ashley has pointed out the following differences: (1) Now farmers live in separate homesteads among the fields they rent, but then all the cultivators lived side by side in the village street. (2) Now each farmer follows his own judgment as to his agricultural operations, but in this early period he took his share in the common method of cultivation, which was regulated by custom enforced by the manor courts. (3) To-day, if the landlord himself engages in farming, his management is independent of that of his tenants, but under the manorial system he depended almost exclusively upon the labor of his tenants, who contributed plows, oxen, and men. Finally, (4) aside from the great gulf between lord and tenants, there was then no such social separation between the cultivators as there is to-day between large and small farmers. The manorial economy of England was a type, though somewhat more systematically developed, of conditions on the continent of Europe.

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[1] See Ashley, *English Economic History*, Vol. I, pp. 17–18.

IV. The Handicraft Stage

This stage begins with the development of towns as centers of trade and handicraft in the latter part of the middle ages, and extends to the introduction of power manufacture in the latter part of the eighteenth century. During such a long period many changes took place in the economic life of the people of Europe, but so far as the expansion and satisfaction of wants is concerned, — the power over nature, — the whole period is in marked contrast with the modern era of machine production.

Gilds. — The growth of trade in the town brought with it the merchant gild, the purpose of which was to regulate the conduct of trade and to keep a monopoly of it for the merchants of the town. Merchant gilds appeared in all the larger towns of England in the twelfth century. But a new class was developing in the towns, — the craftsmen who were engaged in the making of things for sale. As this handicraft grew in importance, the merchant gild was superseded by the craft gild, which in England attained its fullest development in the first half of the fourteenth century. Each craft had its gild, which specified in detail how the business should be carried on, how many should be admitted to it, and how the trade should be learned. This growth in specialization meant also a growth in trade, but in this early part of the handicraft period, commerce was much restricted as compared with that of the present day. The towns made exchanges mostly with the country surrounding them, there being as yet no national or world market of any importance. Plainly such a general system of exchange cannot be carried on by barter, and in this period money became increasingly important.

The agricultural stage had in the greater part of Europe culminated in the feudal system. The nobility maintained order and attended to the fighting while the serfs tilled the soil. The manufacturing cities became the rivals of the feudal lords, who felt their power threatened, and hence they bitterly opposed the cities. The cities were free, and the serfs who fled to them were accepted and made freemen.

The Domestic System. — With the beginning of the modern period the town system gave way to a larger economy. The towns lost the control of trade. The gild system was succeeded by the domestic system, which prevailed in England from the middle of the fifteenth to the middle of the eighteenth centuries. As in the gild system, industry was carried on by hand in a small way, but the functions of merchant and workman were now separated. The gild master sold the goods which he produced in his shop directly to the customers who were to use the goods, but under the domestic system the workman came to be less independent. He received the raw material from a middleman, to whom he also delivered the finished product. Much of this work was done outside of the towns, the artisans thus being enabled to devote part of their time to agriculture. Defoe, in his tour through Great Britain (1724–1726), describes the methods employed as follows: —

> The land "was divided into small inclosures from two acres to six or seven each, seldom more; every three or four pieces of land had an house belonging to them, . . . hardly an house standing out of a speaking distance from another. . . . We could see at every house a tenter, and on almost every

> tenter a piece of cloth or kersie or shaloon. . . . At every considerable house was a manufactury. . . . Every clothier keeps one horse, at least, to carry his manufactures to the market, and every one generally keeps a cow or two or more for his family. By this means the small pieces of inclosed land about each house are occupied, for they scarce sow corn enough to feed their poultry. . . . The houses are full of lusty fellows, some at the dye-vat, some at the looms, others dressing the cloths; the women or children carding or spinning, being all employed, from the youngest to the oldest."

The domestic system should be distinguished from the manorial economy of the agricultural period, for the production under the domestic system was not for home consumption simply, but for the market.

Agricultural Changes. — During the handicraft period there were also important changes in the agricultural life of England. The most prominent of these is the process of inclosing the common fields for the purpose of pasturage during the Tudor period. Later, the farmers practiced what was known as "convertible husbandry"; that is, the pasture was plowed up every few years for raising crops. This, again, has been superseded by the modern system of crop rotation.

The Mercantile System. — The decay of town authority did not imply that industry and commerce were left to the free play of competition. The supervision of the central government took the place of that of the towns. The national system of regulation has been called the Mercantile System, which prevailed in England in the sixteenth, seventeenth, and most of the eighteenth centuries. Its essential idea is the guidance of economic affairs in such a way as to increase the commercial and military power of the nation as a whole. The navigation laws which the student has met with in his study of American history were a part of this system. An attempt was made to create a "favorable" balance of trade and to maintain a good supply of the precious metals. Agriculture was fostered with the aim of promoting the growth of population. The mercantile system has often been described as consisting chiefly of trade restrictions, but it is the contention of Professor Schmoller that in its essence the system meant "the replacing of a local and territorial economic policy by that of the national state." Within the nation it tended to make trade free.

It was characteristic of the mercantile system, too, to interfere in the conduct of internal trade. Prices, wages, and the rules of apprenticeship were fixed by public authority. The quality of goods was inspected by public officials. Patents of monopoly on the sale of certain commodities, such as gunpowder, matches, and playing cards, were extensively granted by royal authority to favored individuals or companies, ostensibly to foster new industries.

> "At the Council of York, Charles was obliged to declare many of the industrial patents void; but enough remained to call forth an indignant declamation from Sir J. Colepepper in the Long Parliament: 'I have but one Grievance more to offer unto you; but this one compriseth many; it is a nest of wasps, or swarm of vermin, which have overcrept the land, I mean the monopoler and polers of the people. These like the frogs of Egypt, have got possession of our dwellings, and we have scarce a room free from them; they sip in our cup, they dip in our dish, they sit by our fire; we find them in the dye-vat, wash-bowl, and powdery tub; they share with the butler in his box, they have marked us and sealed us from head to foot. Mr. Speaker, they will not bate us a pin; we may not buy our own cloaths without their brokage. These are the leeches that have sucked the commonwealth so hard that it is almost become hectical. And some of these are ashamed of their right names; they have a vizard to hide the brand made by that good law in the last Parliament of King James; they shelter themselves under the name of a corporation; they make bye-laws which serve their turns to squeeze us and to fill their purses; unface these and they will prove as bad curs as any in the pack. These are not petty chapmen, but wholesale men.' "[1]

A full account of this stage in English history would deal with (1) the regulation of labor, including the Statute of Artificers passed in the reign of Elizabeth, which provided that all able-bodied men might be compelled to serve as agricultural laborers, and that all artificers, rural or urban, should undergo an apprenticeship of at least seven years. In this same reign provision was made for the assessment of wages by the Justices of the Peace. Every year in each locality the justices were to assemble, and, "calling to them such discreet and grave persons . . . as they shall think meet, and conferring together respecting the plenty or scarcity of the time," they were to fix the wages for every kind of manual labor, skilled or unskilled, by the year, week, or day, and with or without allowance of food. (2) The stage would deal further with the development of systematic poor relief by civil authority; (3) the encouragement of shipping and of (4) the immigration of foreign artisans to introduce new industries; (5) the regulation of the corn trade; (6) the establishing of plantations in the colonies; (7) the regulation of the coinage; (8) the development of banking, insurance, and foreign commerce, and the decay of the old notions regarding the sinfulness of interest taking.

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[1] Cunningham, *English Commerce and Industry, Modern Times*, Part I. pp. 307–8.

V. THE INDUSTRIAL STAGE

In the latter part of the eighteenth century, the slow-going methods of the handicraft stage were radically changed by the Industrial Revolution. The fundamental feature of this change is the introduction of power manufacture. The industrial revolution and the chief features of the Industrial stage will be discussed in the following chapter.

Before proceeding to the consideration of the last stage, it may be well to notice some of the other views which have been expressed concerning the periods of economic development. The German economist, Hildebrand, has taken as his principle of classification the method of exchanging goods, and from this standpoint he gets the following three stages: (1) barter, (2) money, and (3) credit. All three methods of exchanging, to be sure, are in use at the present time, but the extensive use of credit is the new and characteristic thing about present-day exchange. It has been objected that the period before the use of money became prominent is characterized not so much by the barter of goods as by the fact that exchange itself is unimportant.

Another writer (Bücher) has divided economic history according to the length of time which elapses between the production and the consumption of commodities, as follows: —

1. The independent domestic economy.
2. The town economy.
3. The national economy.

In the first stage the interval between the production and consumption is small. Things are produced where they are consumed, as in the village communities of the early middle ages. In the town economy the interval is somewhat greater. The artisans in the town produce for the consumption of other persons, for the most part in the immediate neighborhood, so that the producer meets the consumer without intermediaries. In the third stage, production is for a national market, so that goods may pass through many hands before reaching the consumer. Possibly, according to this view, a fourth stage might be added, — that of a world economy.

Again, we might pay attention chiefly to the condition of labor. Beginning with a condition where there is no distinct laboring class, we pass through slavery and serfdom to free labor, regulated at first by law and custom, and then the free laborer arranges

THE ECONOMIC STAGES

From the Standpoint of Production	From Bücher's Standpoint	From Hildebrand's Standpoint	From the Labor Standpoint	Illustrations from English History
1. Direct Appropriation	Independent Domestic Economy	Barter Economy	Laboring class not differentiated	Prehistoric
2. Pastoral				Before Christ
3. Agricultural			Slavery and Serfdom	11th–14th Centuries
4. Handicraft	Town Economy	Money Economy	Free Labor governed by Custom	13th–18th Centuries
5. Industrial	National Economy	Credit Economy	Individual Contract Group Contract	18th Century to the Present Time

World

Self-Sufficing = 1. [illegible]

Schmoller trade or Commercial = local

the conditions of work by individual contract, and finally to an increasing extent by group contract or collective bargaining.

These various classifications are not contradictory; on the contrary, they supplement each other. Still other divisions are possible. In the preceding table these various points of view are correlated and applied to the history of England.

QUESTIONS AND EXERCISES

1. Write a description of the economic life of a tribe in one of the first two stages.
2. What are the theories concerning the origin of cannibalism?
3. What is the extent of slavery in Africa at the present time?
4. Sketch the development of the woolen industry in England to 1760.
5. Give an account of the origin of the Bank of England.
6. Summarize the history of poor relief in England.

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hnson 1. self-sufficing
2. exchange

CHAPTER IV

THE EVOLUTION OF ECONOMIC SOCIETY (*Continued*)

The Industrial Revolution. — The passage from the handicraft to the industrial stage in England is generally known as the Industrial Revolution. It has been objected that this term is misleading because the introduction of the modern factory system required many years and was but the working out of conditions that had been long maturing. It is true that the growth in the division of labor, the expansion of commerce, and the technical progress of former ages were necessary preliminaries to the industrial revolution, but there is little danger of overemphasizing the importance or the rapidity of the change. The period from 1770 to 1840, the span of a single life, is, after all, a short period from the standpoint of the historian. Yet the changes of this period swept away the inefficient methods that had been used for centuries, and caused profound modifications in social structure. To understand the nature of this movement, we must review the condition of things before it began.

England in 1760. — England was at this time largely self-sufficing in its economic life, producing for itself its food and other articles of ordinary consumption, although compared with mediæval days there had been a marked expansion of international and colonial trade. Woolen goods were the most important export. The imports consisted largely of wines, spirits, rice, sugar, coffee, oil, and furs, and some wool, hemp, silk, and linen yarn. Within the nation, too, there was not such a degree of specialization of industry in particular localities as is found at the present day, although the beginning of such localization had clearly been made in the textile and iron industries. On the whole, however, the commerce between the different sections of the country was slight. The means of transportation were exceedingly poor, notwithstanding the growth of turnpike roads. The roads were described by a traveler as "most execrably vile." Such was their condition that pack horses were still a common means of getting goods to market. Rivers were important highways, canal building having barely begun.

The system of hand manufacture was still in general operation. Although the workmen under the domestic system were no longer owners of the material upon which they worked, yet the tools they used were their property. The beginnings of certain features of the factory system, however, are to be seen long before the use of power machinery, for in some cases workmen were employed in large numbers in buildings owned by the employer, who also furnished the mechanical equipment. But to a large extent manufacturing was combined with agriculture, not only in the textile trades, but in other branches also. "At West Bromwich, a chief center of the metal trade, agriculture was still carried on as a subsidiary pursuit by the metal workers."

The mediæval system of common field tillage was extensively used, a large part of the land being still uninclosed. The cultivation was exceedingly poor, but important experiments tending toward a "new agriculture" were being made in the second quarter of the eighteenth century by Jethro Tull and "Turnip" Townshend. Of the whole number of farms, approximately one half "were owned and occupied by the various classes of freeholders and copyholders; that is, by land-owning farmers."

The mediæval notion of government was still nominally in force. Detailed and special legislation was supposed to be the means of securing a well-ordered trade, as explained in the preceding chapter. But a tremendous revolt had begun against this whole system of government. This revolt had its religious and political as well as its economic aspect. The same year that Thomas Jefferson wrote the Declaration of Independence, asserting that all men are by nature equal, Adam Smith published the *Wealth of Nations*, the most influential book ever written on economics.

"Every individual," said Smith, "is continually exerting himself to find out the most advantageous employment for whatever capital he can command.

It is his own advantage, indeed, and not that of the society, which he has in view. But the study of his own advantage, naturally, or rather necessarily, leads him to prefer that employment which is most advantageous to society. . . . What is the species of domestic industry which his capital can employ, and of which the produce is likely to be of the greatest value, every individual, it is evident, can, in his local situation, judge much better than any statesman or lawgiver can for him."[1]

The Mechanical Inventions. — During the last half of the eighteenth century the progress of invention was exceptionally rapid. Kay's flying shuttle (1738) had facilitated the weaving process to such an extent that it became difficult to secure enough yarn from the spinners. Hand spinning was improved by Hargreave's "jenny" about 1767; Arkwright, in 1771, made a practical success of roller spinning (a method patented long before), using horse power, and later, water power. Crompton combined these two processes in 1779. After 1785 steam power was applied to cotton spinning, and then it was the weaving process that was felt to be too slow. Cartwright began his experiments in 1784, but the power loom did not come into general use until early in the nineteenth century.

The improvement in the steam engine also made possible great advances in the iron industry, of fundamental importance in an age of machinery. The production of English iron was over seventy-five times as great in 1840 as it had been in 1740.

The need for better transportation was met by improved roads, by the building of canals (especially 1790 to 1805), and by the development of steam locomotion. The germ of the modern railway is seen in the tramways used in the coal mines. Cast iron rails were used as early as 1738. The first tramway to be used for public purposes was chartered in 1801, the cars to be drawn by horse power. Trevithick made a locomotive in 1803 that was of practical use. In 1814 Stephenson constructed a locomotive that could draw a load of thirty tons at the rate of three miles an hour. The Stockton and Darlington road was opened in 1825 with a Stephenson locomotive that made fifteen miles an hour, but two years later the directors of the road considered the advisability of abandoning the use of locomotives. In 1829 the directors of the Liverpool and Manchester Railroad arranged a prize contest to determine the practicability of steam locomotion. The success of Stephenson's "Rocket" in meeting the requirements of the contest demonstrated that the new method of locomotion had come to stay.

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[1] A. Smith, *Wealth of Nations*, Book IV, Chap. II.

> "A general survey of the growth of new industrial methods in the textile
> and iron industries marks out three periods of abnormal activity in the evolution of modern industry. The first is 1780–1795, when the fruits of early
> inventions were ripened by the effective application of steam to the machine 1
> industries. The second is 1830 to 1845, when industry, reviving after the
> European strife, utilized more widely the new inventions, and expanded under
> the stimulus of steam locomotion. The third is 1856–1866 (*circa*), when the 2
> construction of machinery by machinery became the settled rule of industry."[1] 3

It is impossible here to review all the lines of progress in invention and discovery. This progress is not confined to mechanical matters, and taken as a whole, undoubtedly has been much more rapid in the nineteenth than in any preceding century.

Mr. Alfred Russel Wallace says that "to get any adequate comparison with the nineteenth century we must take, not any preceding century or group of centuries, but rather the whole preceding epoch of human history." A basis for his statement is given by the following comparative lists of great inventions and discoveries. One hesitates to make such a comparison, but it possesses some interest: —

OF THE NINETEENTH CENTURY	OF ALL PRECEDING AGES
1. Railways	1. The Mariner's Compass
2. Steamships	2. The Steam Engine
3. Electric Telegraphs	3. The Telescope
4. The Telephone	4. The Barometer and Thermometer
5. Lucifer Matches	5. Printing
6. Gas Illumination	6. Arabic Numerals
7. Electric Lighting	7. Alphabetical Writing
8. Photography	8. Modern Chemistry Founded
9. The Phonograph	9. Electric Science Founded
10. Röntgen Rays	10. Gravitation Established
11. Spectrum Analysis	11. Kepler's Laws
12. Anæsthetics	12. The Differential Calculus
13. Antiseptic Surgery	13. The Circulation of the Blood
14. Conservation of Energy	14. Light proved to have Finite Velocity

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[1] Hobson, *Evolution of Modern Capitalism*, new edition of 1907, p. 89.

OF THE NINETEENTH CENTURY	OF ALL PRECEDING AGES
15. Molecular Theory of Gases	15. The Development of Geometry
16. Velocity of Light directly measured, and Earth's Rotation experimentally shown	
17. The Uses of Dust	
18. Chemistry, Definite Proportions	
19. Meteors and the Meteoritic Theory	
20. The Glacial Epoch	
21. The Antiquity of Man	
22. Organic Evolution established	
23. Cell Theory and Embryology	
24. Germ Theory of Disease, and the Function of the Leucocytes.[1]	

Agricultural Changes. — During the Industrial Revolution there were also important changes in agriculture. Bakewell, in the second half of the eighteenth century, improved the breeds of sheep and cattle. The inclosing of the common fields proceeded with great rapidity, not, as in the sixteenth century, for the purpose of sheep raising, but to permit of more efficient tillage of the soil. Between 1760 and 1850 over seven million acres were inclosed in England. The small land-owning farmer was crowded out, partly because more investment per acre was needed with the new agriculture, partly because "gentlemen farmers" (men who had made money in other pursuits and took up agriculture because it was fashionable) bought them out, and because the price of land was greatly increased by the desire of wealthy men to build up family estates. To-day practically all English farmers are tenants. The small farmer, who under the domestic system was also frequently a handicraftsman, was thus crushed between the new agriculture and the new industry.

"Hitherto the rude implements required for the cultivation of the soil, or the household utensils needed for the comfort of daily life, had been made at home. The farmer, his sons, and his servants in the long winter evenings carved the wooden spoons, the platters, and the beechen bowls, plaited wicker baskets, fitted handles to the tools, cut willow teeth for rakes and harrows and hardened them in the fire, fashioned ox yokes and forks, twisted willows into the traces of other harness gear. Traveling carpenters visited farmhouses at rare intervals to perform those parts of work which needed their professional skill. The women plaited the straw for the neck collars, stitched and stuffed sheepskin bags for the cart saddle, wove the straw and hempen stirrups and halters, peeled the rushes for and made the candles. The spinning wheel, the distaff, and the needle were never idle; coarse hand-made cloth and linen supplied all wants; every farmhouse had its brass brewery kettle. . . . All the domestic industries by which cultivators of the soil increased their incomes, or escaped the necessity of selling their produce, were now supplanted by manufactures."[1]

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[1] Wallace, *The Wonderful Century*, pp. 154–155.

Effects of the Industrial Revolution. — As has already been indicated, the Industrial Revolution introduces one of the great stages in the development of man's power over nature. But along with the new opportunities came also new dangers and perplexing problems.

(1) *The Factory System.* — The use of expensive machinery and steam power made it impossible for men to carry on their work in their own homes. The factory supplants the home as the typical unit of production. Instead of working by themselves or with a few assistants, men now to a much greater extent than before must congregate in cities, and submit to a new discipline in large groups organized for purposes of production. This brought with it a new division of society into classes. The machine and the workshop, as well as the raw material and the product, are at no stage in the productive process owned by the men who do the manual work. The masses become wage earners. Now, in some industries not one in a hundred can by exceptional ability become an independent employer, and the workman knows that he is a workman for life. So we have now two industrial classes, laborers and capitalists, with a great gulf between them which comparatively few men can cross, and with interests which often seem irreconcilable. What the ultimate effects of the new system of production will be cannot be stated, but it has been suggested that these changes in external relations are affecting also men's

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[1] Prothero, quoted by Cunningham, *Growth of English Industry and Commerce, Modern Times,* Part II, p. 722.

habits of thought. Can we expect the institution of private property to seem as natural and sacred to those who have nothing to do with the buying and selling of products as to those who engage much in pecuniary transactions? It has been suggested that the feeling that we have a right to the product of our own labor is merely a survival of the era of small-scale hand manufacture.

(2) *The Expansion of Markets and Industrial Specialization.* — Along with the new methods of production there has been a change from restricted local markets to national and even world markets. Improved methods of transportation make it possible for different branches of production to be localized in regions where there are special facilities for raw material or power. This implies greater economic interdependence and greater liability to trade fluctuations and disturbances. One great advantage of the old slow-going system of manufacture and trade was its regularity. As the area of the market increases, manufacturers find it more difficult to decide what and how much to produce. Trade fluctuations have increased in severity with the growth of large-scale production. This is due not merely to the changing and enlarging demand which cannot be calculated, but also to the fact that manufacture itself is constantly being disturbed by improvements which cannot be foreseen. It is possible that a still larger scale of manufacture hereafter will bring steadiness in industry, but whatever the cause of these fluctuations, the effect upon the wage earner is demoralizing. If he were wise enough to save his earnings during good times, and so have something for hard times, he would not suffer so much. But very few people who live in abundance can do this; how much less those whose condition even in good times is one of meager comfort!

Evils of the Transitional Period. — The condition of the English working classes in the latter part of the eighteenth and early nineteenth centuries was undoubtedly worse than in any other period in the history of the country. It is difficult to say to what extent this was due to the introduction of the factory system. In addition to the new methods of manufacture there were wars, peculiar facts about land ownership, duties, and taxes. There is some evidence that the condition of child workers under the domestic system was often worse than in the factories, their parents proving the hardest taskmasters.

> "The evils and horrors of the industrial revolution are often vaguely ascribed to the 'transition stage' brought about by the development of machinery and the consequent 'upheaval.' But the more we look into the matter, the more convinced we become that the factory system and machinery merely took what they found, and that the lines on which the industrial revolution actually worked itself out cannot be explained by the progress of material civilization alone; rather, the disregard of child-life, the greed of child-labour, and the maladministration of the poor law had, during the eighteenth century, and probably much farther back still, been preparing the human material that was to be so mercilessly exploited." [1]

But whatever the causes, the facts that have been revealed regarding the conditions in English mines and factories of this period are amazing. The picture includes cruelty to apprenticed children, excessive hours, and unhealthful conditions of work. The evils were worst in the smaller factories, the owners of which were hard pressed by relentless competition. Outside of the factories, also, those who attempted to continue to work in their homes in the old way suffered from irregular employment and low earnings. The distress of the hand-loom weavers affords an illustration.

Competition and Laissez-faire. — We have seen that Adam Smith advocated liberty. He asserted that every man, if allowed to do as he pleased, would sooner or later do that for which he was best fitted, and would consequently work where he could get the most wages. Every man would buy what suited him best, and, after some experiment, manufacturers would make what was called for. If one line of work was more profitable than another, more men would go into it and by their competition would bring prices down. If men cheated their customers, the men would go somewhere else, and cheating would not pay. Everywhere men would look out for their own interests and would make the bargain that was most advantageous to themselves. This system of balanced self-interests resulting from competition was the best regulator possible, infinitely better, he claimed, than the old-time laws, which only incumbered the development of industry. If the policy of industrial freedom were adopted, he prophesied a great increase in the national production of wealth.

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[1] Hutchins and Harrison, *A History of Factory Legislation*, p. 13.

This view gained in favor during the Industrial Revolution. Not that a wholesale repeal of the old laws occurred, — such things never happen in England, and are difficult anywhere, — but there is a quiet and effective way of changing laws by changing men's ideas regarding them and leaving them unenforced. A law that has been long observed has often to be long dead before people gain the courage to repeal it. So the law requiring seven years' apprenticeship before one could enter certain trades quietly died during the eighteenth century, and when, finally, in the labor troubles early in the nineteenth century, some workmen in desperation discovered the old law and prosecuted employers for violating it, the law was first suspended and then repealed, as being plainly ill adapted to the new condition of industry. So, little by little, the old laws were repealed or forgotten, and men were left free to bargain and manufacture as they pleased.

This policy of *laissez-faire*, or letting things drift, was very generally accepted by the economic writers who followed Adam Smith, and was clearly reflected in the parliamentary debates. The universal free play of competition came to be the prevailing ideal in this first phase of the industrial stage. It was in keeping with this spirit that England became a free-trade nation in this period, the last step being taken when the "corn laws" were repealed in 1846, the act going into effect in 1849.

The Reaction against the Passive Policy. — It may be said that by 1850 the abandonment of mercantilistic ideas was complete in England, but long before this date a new system of legislation was enacted for the purpose of controlling industry. The government could not ignore the actual condition that resulted from competition and the introduction of machinery. We have now to consider some of the main lines of development of industrial regulation.

(1) *The Quality of Goods.* — In repealing the laws for the inspection of wares it was urged that cheating would not pay and would cure itself. Indeed, it was said that the very inspection of wares by the government was the cause of fraud; for, the govern-

ment brand being often put on carelessly, men bought poor goods, because of the brand, which they would have rejected if they had examined them. The abolition of the laws would result in each examining goods for himself, it was asserted. It is hardly necessary to say that these hopes were not realized. Men might be trusted to attend their own interests if they knew enough to do so, but they do not. Who can tell the quality of baking powder, or ground spices, or patent medicines, or many other things that are misrepresented when offered for sale? For these the ordinary buyer's knowledge is worthless; an expert must be employed. Such has been the experience of the English people and also, more recently, of the people of the United States, and the law now provides for the inspection by government experts of many articles of food. The theory that men will ruin their business prospects if they cheat, and so will be deterred from cheating, has been utterly exploded by this great English experiment. The reputation for honesty is undoubtedly a source of strength to many business houses; but many a man has perpetrated an audacious fraud upon a country for a few years and retired with a fortune when his cheating began to be known. The inspection of goods by the State is a principle now fully recognized, the only question being how far it should be applied.

(2) *The Protection of Labor.* — As a result of a series of epidemics of infectious fevers, public attention was called to the condition of the apprenticed children in cotton factories. In 1796 the Manchester Board of Health reported upon the unhealthful conditions under which the children worked, pointing out that "the untimely labour of the night, and the protracted labour of the day, with respect to children, not only tends to diminish future expectations as to the general sum of life and industry, by impairing the strength and destroying the vital stamina of the rising generation, but it too often gives encouragement to idleness, extravagance and profligacy in the parents, who, contrary to the order of nature, subsist by the oppression of their offspring." In 1802 the first factory act was passed to protect the health and morals of pauper children in cotton factories. The apprentices were not to work more than twelve hours by day, and after 1804 not at all by

night, but the law was not effectively administered. After much agitation, in which Robert Owen took a prominent part, a second step was taken in 1819. The act prohibited children under nine years from working in cotton mills, and no person under sixteen was to be employed more than twelve hours per day. As with the act of 1802, the enforcement of the law was left to the justices of the peace. In 1833 regulations as to conditions of work for children and young persons were made for all textile factories, and special inspectors were provided to enforce the law. In the following years the controversy concerning labor legislation was violent and bitter. After a report by a committee revealing shameful conditions in the mines, an act was passed in 1842 prohibiting the employment of women and children underground. In 1844 women were included in the protective factory legislation and the half-time system for children was enacted. The Ten Hours' Act of 1847 limited the working day to ten hours. Subsequently, protective legislation was made to cover industrial establishments generally. These various laws were consolidated in 1878, and again in 1901. Laws now in force provide for (1) the fencing in of dangerous machinery; (2) sanitation in factories; (3) a minimum age and schooling for children at work; (4) limitation of the hours of work for women and children. There is no direct regulation of the hours of adult male workers, nor of the wages of any class of workers.

Another important line of legislation that has been made necessary by the extensive use of machinery deals with the *liability of employers* in cases of accidents to their workmen. Under the common law a workman was entitled to receive damages when injured as a result of the negligence of his employers, but he was supposed to assume the ordinary risks of the business. When the injury was caused by the workman's own negligence or by the negligence of a fellow-workman, the employer was not responsible. The Employers' Liability Act of 1880 gave the workman a right to compensation also in certain cases where the injury was caused by the negligence of other employees, but in 1897, by the Workmen's Compensation Act, a radical departure was made from previous legislation. The employer is now liable to pay damages even when there has been no negligence on his own part, and even when the accident has been due to the neglect of the injured workman himself, except only in cases of "serious and willful misconduct." This principle now applies also to agriculture, shipping, and mercantile and domestic employments, and certain trade diseases have been made to count as accidents.

(3) *Labor Organizations.*—Modifications in the working of free competition have also been effected by the voluntary organization of the worker, not only by their influence upon legislation, but also by direct dealings with employers. We have noticed the gilds, which played a large part in the history of the middle ages. These, however, were not like modern trades unions. They were unions of men who worked, but not exclusively of wage earners, nor in the interests of wage earners even chiefly. They were formed of masters. But combinations of the wage-earning classes are found long before the Industrial Revolution. They do not become prominent, however, until the nineteenth century. Laws prohibiting the combination of laborers had been passed at intervals since the middle ages, and in 1800 Parliament, finding that unions were increasing, passed a most comprehensive law to suppress them, declaring illegal "all agreements between journeymen and workmen for obtaining advances of wages, reductions of hours of labor, or any other changes in the conditions of work." Under this law many workmen were prosecuted and severely punished, but in vain. In 1824 Parliament confessed the law a mistake, and repealed it along with previous laws relating to combinations of workmen. Trades unions thus tolerated grew at an astonishing rate, but they were still subject to legal persecution. Judicial decisions, especially, were adverse to them, as the courts regarded them as agreements in restraint of trade. But in 1871 a law was passed which declared that the purposes and actions of trades unions were not to be deemed unlawful as being in the restraint of trade, and in 1875 the legality of trades unions was still further recognized by the provision that acts which were not punishable as crimes when done by one person should not be indictable as conspiracy when done by two or more in furtherance of trade dispute, and finally, in 1906, the courts were forbidden to entertain

actions for damages against trades unions. In this same year peaceful picketing was legalized.

(4) *The Extension of Government Enterprise.* — The reaction against a *laissez-faire* policy is further shown by a growth in the sphere of industry directly managed by the government. We find municipalities operating street railways and furnishing water, gas, and electric light. Municipal enterprise includes also in various places markets, docks, dwellings, baths, race courses, oyster fisheries, slaughterhouses, milk depots, employment bureaus, sewage farms, theaters, and many other lines of activity. Again, the national government conducts the postal savings banks, the parcels post, and the telegraph and telephone systems.

Summary. — In this chapter a brief sketch has been given of England's attempt to deal with a new set of forces. An immense increase in production has taken place, due in part to competition, more to machinery. But the distribution of this wealth, growing directly out of the principles of competition so long as they were unrestrictedly applied, was such that poverty grew rapidly, and some said even faster than wealth, and the laboring population of the realm sank into deeper distress and degradation. The partial benevolence of employers, which would fain have mitigated this disaster, was, as a rule, neither welcomed nor tolerated by the competition which had made itself law. Not until this benevolence was formulated, generalized, and enforced by disinterested legislation was the horror of the situation diminished. When we hear the principle of "a fair field and no favor" and "no State intervention" advocated by a man strong in the consciousness of personal advantages, we must remember that he is a century behind his time, and that he has not read or has not profited by one of the most dolorous chapters in human history. The English nation, after a trial of free competition and no interference, as thorough as could well be made, has undeniably returned to the principle of governmental activity which she had abandoned, — a principle which recognizes as the function of the State the protection of the citizens, and the furtherance of their material and social well-being, by every law and every activity which offers a reasonable guarantee of contributing to that end. It is to be noticed furthermore that, as a matter of fact, all this activity of the State contributing to material and social well-being has also increased freedom as a positive, constructive force. It has promoted the growth of individual powers and enlarged the scope of activity of the average citizen. It has not tended to slavery, as Herbert Spencer long ago maintained, but its tendency has been in the direction of the sort of liberty that is really worth while; namely, liberty as a power of development and of contributing (in the words of the philosopher T. H. Green) to the "common good."

QUESTIONS AND EXERCISES

1. What is the origin of the term "*laissez-faire*"?
2. What laws are in force in your state regarding the inspection of food and other articles offered for sale?
3. Give a detailed account of the development of one of the great inventions.
4. Give a sketch of the enactment and repeal of the "corn laws."
5. Give an account of the development of monopolies and trusts in England.

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CHAPTER V

THE ECONOMIC DEVELOPMENT OF THE UNITED STATES

THE economic development of the United States has in some respects been very unlike the economic development of England, and yet very like it in other respects. Let us note in the first place the points of difference, the factors and characteristics of our economic history which are peculiarly American.

Economic Stages in American Industrial History. — The transit of civilization from Europe to America, as an American historian[1] has finely phrased it, thrust the European laws, customs, and industrial technique of the seventeenth century into the primitive environment of a wilderness, and for the moment the wilderness dominated. Industry was forced to begin at the beginning and retrace — as the child is said to retrace the mental development of mankind — the industrial evolution of the race.

The American people have thus, during the comparatively brief historical period which has elapsed since the settlement of this country, run the whole gamut of industrial evolution, passing through with striking rapidity all the stages differentiated in the preceding chapters. There was slaughter of captives in the Indian wars, enslavement of Indians, particularly — but not only — in the Spanish colonies, later the introduction of negro slavery and modified serfdom in the bond or indented servants, then the individual wage contract, still supreme among agricultural laborers, and finally, collective bargaining through the great trades unions of the present generations. In a similar way, practically all the stages differentiated in the table given on page 40 may be traced in the industrial evolution of the United States.

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[1] Edward Eggleston, *Transit of Civilization*, New York, 1900.

Naturally it is not to be supposed that American industrial society worked its own way unaided through all those economic stages which the race, with "painful steps and slow," has laboriously traversed in its upward march. Stimulated by European culture, we hurried through the earlier stages, for the most part, retracing them merely as an incident of frontier conditions, and skipping some — such as the pastoral stage — in many sections of the country. On the other hand, it must not be inferred that we have everywhere passed beyond the so-called primitive stages. Barter is still the commonest mode of exchange in some parts of the country, and there are comparatively few rural districts in which credit transactions have in the main taken the place of money transactions. It is interesting to observe that, owing to the progressive Western movement of the population of the country, the stages in the history of man's productive efforts appeared in regular order from West to East. Thus, a few years ago, the country of the frontier was occupied by hunters and trappers; next were great stretches of country almost entirely devoted to grazing; farther east, agriculture predominated; trade and commerce were active, especially in the country east of the Mississippi; manufacture on a large scale was prominent in the North Atlantic and North Central groups of states; while finally the large industrial combinations which mark the latest step in development were confined (with respect to legal residence at least) to the Atlantic seaboard.

Sectionalism. — This phenomenon of the contemporaneous existence of several industrial stages, side by side, under the same government, has laid upon this country some of the hardest problems which it has had to solve. The ever present but ever receding frontier has continually created a set of interests antagonistic to those of the settled industrial and commercial communities. Shays's Rebellion in 1786 was in part a protest of the more thinly settled debtor communities against the determination of the commercial centers to introduce the sound currency which a developed commerce requires. The federal Constitution was adopted and the present government created in order, largely, to strengthen national credit, insure taxation, remove trade barriers, and provide a sound currency; and the opposition to the ratification of the Constitution came largely from those agricultural and thinly settled communities that wanted to keep paper money, evade debt payment, and resist the collection of taxes. During the earlier history of the country wildcat banking and inflated currency regularly followed in the wake of the frontier.

Tariff legislation, with its different appeal to the agricultural and industrial sections of the country, has been another prolific source of territorial conflict. After the War of 1812, the manufacturing centers of the North redoubled their efforts for protection. This was strenuously resisted by the South, where manufactures had practically gained no hold, and the struggle of the sections over the tariff led to Nullification in South Carolina and the acceptance by the South of the doctrine of secession. The Civil War itself was largely a sectional quarrel growing out of ceaseless friction between a section which had reached the industrial stage and a condition of free-wage contract with a section which had been held in the agricultural stage by the retention of slavery. As a late illustration of sectional conflict arising from the natural clash of districts in different stages of economic development, we have the free-silver campaign of 1896, when the mining, agricultural, and debtor communities of the West and South arrayed themselves against the industrial and creditor communities of the East and North. The typical political struggles of the past have been territorial and sectional; now that the frontier has disappeared, the typical political struggles of the future will take the form, possibly, of class against class.

Characteristics of the American People. — Although the frontier has disappeared, the pioneer work of "winning a continent from nature and subduing it to the uses of man" has left an indelible impress upon the American character. In the beginning the dangers and hardships of the frontier acted as a powerful selective force in determining the character of our earlier immigrants, giving us an unusually restless, mobile, and enterprising people. The process of settlement which followed merely emphasized these qualities and added others of a kindred nature. The primitive settler, following the trapper and the trader into the wilderness, was forced to depend upon himself for protection and subsistence; he expected little aid from the government, was unused to the restraints of law, and a little contemptuous of its possibilities, either for good or for evil. The process of settlement, then, merely confirmed the American in that excessive individualism which has made him independent and resourceful, to be sure, but partial to the spoils system, tolerant of lynch law and labor violence, indifferent to waste and weakness in the administration of his government.

At the same time the great natural wealth of our land and the ease with which it could be secured from the government have taught our people, particularly in the West, to regard nature rather than thrift as the source of wealth, to exploit rather than create, to work and study as we farm — extensively. As a people, we are optimistic but careless, generous but wasteful, buoyant but boastful. Industrially, we have risen to our exceptional opportunities with spirit, playing the commercial game at times with excessive energy and devotion; but we have come to emphasize quantity rather than quality, product rather than finish. We "lead the world" in the use of labor-saving machinery, but depend largely upon Europe for our skilled artisans.

Growth of Population. — The mere growth of the American people has been as striking as it is familiar. In 1640 there were about 25,000 persons, excluding Indians, in British North America; about 260,000 at the end of the seventeenth century according to Bancroft; according to the same authority the million mark was reached in 1743; and in 1790 the first federal census showed a population of 3,929,214 in the United States alone. In the next hundred years the population doubled every twenty-five years on an average, and although the rate of increase has fallen off somewhat since the Civil War, we are still growing at a marvelous pace, the population of continental United States being estimated at 82,574,195 in 1905.

Despite this enormous increase, there has been at no time any evidence that the population of this country was multiplying more rapidly than the means of subsistence. Wages and incomes in general have risen, not without interruption, but with comparative steadiness, over long periods; and the dismal predictions of overpopulation which were so common in the first half of the nineteenth century have been signally discredited as practical propositions applicable to the American people of this epoch. The exploitation of national wealth, the perfection of business organization, and the invention of labor-saving machinery have more than kept pace with the population; and it has been discovered that over long periods prosperity and high wages tend to depress rather than to raise the birth rate, even of the wage-earning population. We are in no danger of a "devastating torrent of children."

On the contrary, the real problem of the twentieth century, or at least the problem that has evoked the greatest discussion, is found in the steady decline of the birth rate. According to some of the most eminent authorities, the race is dying at the top, the ablest and most successful people have the smallest families; and this constant sterilization of the ablest stock of the race is, in the opinion of such authorities, second in importance to no problem which Western civilization is called upon to solve. It is not that we want more people. Population is still increasing with sufficient rapidity. The problem lies in the apparent failure of the most efficient individuals to multiply as rapidly as certain classes of the less efficient. Other authorities, it should be added, maintain that this "race suicide" has been going on for centuries, that it has not in the past, and will not in the future, lower the vitality or general efficiency of the race. Such writers view with complacency the ceaseless sterilization of the upper classes, maintaining that the process stimulates the ambition of the abler members of the lower classes by creating room at the top, and that so long as the habits and ideals of the upper classes remain wholesome, there is no cause for regret that the individuals who compose these classes are not self-perpetuating. Social heredity, not personal heredity, the preservation of sound morals, wholesome customs, and habits of social helpfulness, together with the opening up of new opportunities, are the important factors.

Second only in importance to "race suicide," and intimately connected with it, is the problem created by the rush to the city.

In 1790 about 33 Americans in every thousand lived in a city of 8000 inhabitants or more, in 1900 more than 33 in every *hundred* lived in a city of this size. The mere facts in this connection are familiar to every one and need no elaboration. Their importance lies in the fact that the rush to the city is apparently universal, that it has been going on for centuries, and that it indefinitely complicates and aggravates the social, industrial, and political problems of our time. "Race suicide," for example, is more attributable to social conditions created by city life than to any physical incapacity of the women of this generation to bear children; the evils commonly charged to the factory system are due as much to city crowding as to the factory system itself; and, speaking generally, whatever plan of reform for existing evils we devise or champion, we must reckon with this deep-rooted and persistent force which draws to the city so much of the best talent and ability which the rural districts produce.

Slavery and the Negro Problem. — From the earliest period of settlement, one of our fundamental industrial problems has been to get enough labor to exploit the great national wealth of the country. The first solution attempted was by importing bondsmen or indentured servants. "Nearly all the immigrants that came (to Virginia) between 1620 and 1650 were bondsmen," and in 1680 an English official estimated that about 10,000 persons were kidnaped or "spirited away" to America every year. This class of indentured servants consisted of runaway apprentices, penniless debtors, kidnaped children, honest laborers, vagrants, and criminals of all kinds. They were sometimes subject to the most inhuman treatment, but, because they had white skins, soon melted into the free population and never created a race problem.

The first negro slave landed in Virginia in 1619. For about thirty years they did not increase very rapidly, but after that, and until the close of the eighteenth century, they multiplied with greater rapidity than the white population. In 1790 there were 750,208 negroes or persons of negro descent in this country, constituting 19.3 per cent of the population. Since 1790 the negro population has steadily declined in relative importance, and in 1900, numbering 8,840,789 in all, it constituted only 11.6 per cent of the general population. The relative decline of the negro population is probably not due to white immigration, since the natural growth of the white population is markedly greater than that of the negroes in the South, where white immigration has been unimportant.

The negro problem to-day, in so far as it is an economic as distinguished from a political or social problem, arises from the tendency of the negroes to concentrate in the cities and in a narrow district of the cotton-growing states known as the black belt; from their shiftlessness, their ignorance, their dependence upon credit advances in the farming districts, and their alarming concentration in a few occupations, some of which — particularly as they practice them — are neither educational, uplifting, nor developmental. In 1900, for instance, 63 per cent of the male and 90 per cent of the female negro breadwinners were employed in unskilled trades, and the proportion confined to the unskilled trades shows no signs of diminishing. This condition of affairs is due in some degree to the economic inertia and shiftlessness of the negroes themselves, but it is also due in part to the race prejudice of their white brethren, which, unfortunately, shows no abatement with the passage of time. The trades unions, for instance, evince a growing disinclination to receive negroes as members on the same status as white workingmen. Vigorous efforts are now being made in the South to provide industrial training of a systematic kind for the negroes, and in the future the rather menacing movement of the present day may be checked or wholly reversed.

Immigration. — Next in importance to the negro question is the problem of immigration. We have always had an immigration problem. "Governor Thomas Dongan, in 1685, made a report to the King of England full of dreadful forebodings as to the future of the 'Royal Province' of New England unless the tendency to overcrowding were promptly checked. . . . George Washington and Thomas Jefferson are both recorded as opponents of an unrestricted policy of immigration, and it may be safely asserted that no considerable period has elapsed since their day without producing eloquent and forceful advocates of a rigid restrictive immigration policy."[1] Owing, however, to the extraordinary increase of immigrants in recent years — the number rose from 223,299 in 1898 to 1,285,349 in 1907 — unusual interest in the subject has been aroused, the restrictive features of our law have been repeatedly strengthened, and a commission has been appointed by Congress to investigate the subject.

Most of the alarm which has recently been expressed, however, is due to the change in character, rather than the increase in volume, of our immigration. Instructive statistics bearing upon this point are given in Table I on the following page. From this table it appears that until nearly the last decade of the nineteenth century, most of the immigrants came from the United Kingdom, Germany, and northwestern Europe, while since that time the arrivals have been largely from southern Europe; and it is charged that the new immigrants are more illiterate, more given to crime, of poorer physique, and possessed of less property than the earlier immigrants. "These people," it has been said, "have no history behind them which is of a nature to give encouragement. They have none of the inherited instincts and tendencies which made it comparatively easy to deal with the immigration of the earlier time. They are beaten men from beaten races, representing the worst failures in the struggle for existence. Centuries are against them, as centuries were on the side of those who formerly came to us."[2]

There can be no doubt about the real gravity of the problem. In times past charitable associations, and even certain foreign governments, "assisted" the poorest and neediest of their citizens to migrate to this country; famine and revolution in Europe spurred the impecunious and the radical to take refuge among us; regularly, also, the tide of immigration has ebbed and risen in close correspondence with the business prosperity of this country, artificially swelling our laboring population in times of industrial activity, encouraging our industrial managers in their spasmodic, jerky methods of production, and thus augmenting the severity of our alternating periods of industrial depression. Moreover, in certain industries the immigrant with his relatively low standard of living has driven out the native workman; and most of the immigrants have shown an unfortunate tendency to linger in the cities of the eastern seaboard, swarming in the slums and intensifying all those social evils which have their origin in urban congestion.

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[1] Commissioner of Immigration, Robert Watchorn, in *The Outlook*, Vol. 87, p. 900.

[2] Walker, *Discussions in Economics and Statistics*, "Restriction of Immigration," p. 447.

In the light of history, on the other hand, the immigration problem is far less alarming than it is in the dry light of recent statistics. In the first place, the statistics themselves, as ordinarily published,

TABLE I

Total Number of Immigrants (in Thousands) and Proportion coming from Designated Countries by Specified Periods: 1821–1906.[1]

	1821 1850	1851 1860	1861 1870	1871 1880	1881 1890	1891 1900	1901 1906
Total Number, 000 omitted	2456	2598	2315	2812	5247	3844	4934
Per cent							
Germany	24.2	36.6	34.0	25.6	27.7	14.1	4.3
Great Britain	1.0	16.3	26.2	19.5	15.4	8.9	5.4
Ireland	42.3	35.2	18.8	15.5	12.5	10.5	4.4
Norway, Sweden, and Denmark	0.7	0.9	5.4	8.6	12.5	9.9	7.0
Total	82.2	89.0	84.4	69.2	68.1	43.4	21.1
Austria Hungary	....	....	0.4	2.6	6.7	15.5	24.5
Italy	0.2	0.3	0.5	2.0	5.9	17.1	25.0
Russia and Poland	0.1	0.1	0.2	1.8	5.0	15.4	17.7
Total	0.3	0.4	1.1	6.4	17.6	48.0	67.2
All other Countries	17.5	10.6	14.5	24.4	14.3	8.6	11.7
Grand Total	100.	100.	100.	100.	100.	100.	100.

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[1] Data from Adams and Sumner: *Labor Problems*, p. 73, and the *Statistical Abstract*, 1906, p. 56. These figures are not exact and not altogether comparable, owing to changes in the immigration year, the distinction of nationalities, and the immigration laws. For the effect of these changes, see Boeckh: *The Determination of Racial Stock among American Immigrants*, Publications of the American Statistical Association, December, 1906; and Willcox, *National Civic Federation Review*, November, December, 1906, p. 7.

Statistics

are misleading, because they take no account of the large number 1 of immigrants who return to Europe. In the second place, the 2 importance of the number of immigrants depends largely upon its relation to the population of the country; and relative to the population immigration seems to be declining rather than increasing. For instance, immigration reckoned in proportion to the population was heavier in the period 1850–1855 than in the period 1900–1905. In the next place, the attraction of the city for the 3 immigrant has been exaggerated. While a great majority of the immigrants are forced to locate temporarily in our large seaboard cities, the later and more trustworthy studies indicate that the immigrants are less rather than more disposed to remain permanently in the cities than our native population, and that the new immigrants show no greater tendency to stagnate in the cities than the earlier immigrants. Finally, it is to be noted that our immi- 4 gration laws regarding the exclusion of diseased, criminal, immoral, feeble-minded, and indigent persons are constantly becoming stricter and their administration more efficient. In addition to the plainly undesirable classes just noted, Chinese laborers have been excluded since 1882, aliens under contract to take up particular work since 1885, and anarchists since 1903.

Surveying the whole history of immigration, three general conclusions may be drawn which must be fully considered by those engaged in the solution of the present problem.

(1) We have, as a people, shown a marvelous ability to assimi- 1. late rapidly people of diverse races, tongues, and religions, amalgamate them and stamp them with the characteristic qualities of the American. Even at the close of the eighteenth century, about one fifth of the population spoke some other language than English as their mother tongue, and probably one half of the population were of other than Anglo-Saxon blood. The heterogeneous character of the population is illustrated by the fact that nine of the men most prominent in the early history of New York represented as many different nationalities. (2) We have failed, how- 2 ever, to amalgamate the negro and the Chinese; the incidental feature of a dark skin creates especially difficult problems; and it is this fact which makes the suggested exclusion of Japanese

laborers worthy of serious consideration. The high qualities of the Japanese, their industry, intelligence, and native refinement make them in many respects the most desirable kind of immigrants; but it is conceivable that they might come to this country in sufficient numbers to create a problem similar in character and gravity to the negro problem; and if investigation show that there is real probability of such a result, they should be excluded, even though the danger be attributable to race prejudice of the natives rather than the clannishness and exclusiveness of the Japanese 3 themselves. (3) In the main, however, the traditional policy of this country has been "to improve rather than to check immigration," and the burden of proof is upon those persons who would restrict immigration by arbitrarily limiting the number of immigrants.

Natural Resources. — Next to the character of the people with which this continent has been stocked, the most powerful factor in shaping the economic development of the United States has been its enormous natural wealth. With a territory (excluding Alaska and our insular possessions) more than three fourths as large as all Europe, indented, particularly on the eastern coast, with a large number of good harbors, intersected by internal waterways that make communication cheap and easy, endowed with water power that in the opinion of one authority is probably "more valuable than those of all other lands put together," marked by every variety of climate and soil, covered in many places, at least originally, with magnificent forests, and liberally stocked with almost every variety of mineral wealth, it is not surprising that at the present time the United States "leads the world" in the production of iron and steel, cotton, coal, coffee, gold, silver, dairy products, corn, wheat, lead, lumber, tobacco, petroleum, and hogs. It would be strange, indeed, with the vast mineral and agricultural resources at our command, if we did not "lead the world" in many things.

Of the 2,972,584 square miles of territory in continental United States, about three fourths at one time or another has belonged to the central government. The possession of this vast common treasure by the United States has played an important part in dignifying and strengthening the federal government. But the lavish alienation of the public lands in endowing free schools, subsidizing railways, and other internal-improvement companies, and in providing free homes for the landless, has been an even more potent factor in hastening our economic development; even though it has led, as has been said with some justification, "to the ravishment rather than the development of our natural resources." The public domain and its disposition are discussed at some length in a later chapter, but one aspect of this subject — the part which free land has played in our economic development — is so vitally important that it requires special notice at this point.

While it was not until the passage of the Homestead Act in 1862 that land could be legally acquired without cost by simple occupation and cultivation, it is practically true to say that since the seventeenth century any enterprising citizen, by the exercise of a minimum amount of industry and frugality, could secure a homestead large enough to support himself and family. This opportunity offered to the artisan a free choice between wage service and farming, constantly depleted the ranks of mere laborers, operated to keep wages at least as high as the earnings of a "no-rent" homestead, and kept fresh and vigorous that sturdy feeling of independence that has been the distinguishing mark of the American workingman. By 1904, for instance, the national government had given away, under the Homestead and Timber Culture Acts, 106,240,464 acres of land; and in addition to this, 278,001,612 acres had been sold at less than cost, that is, at less than the cost of acquisition, management, survey, patenting, and the like.

How long the public lands will hold out it is impossible to say. Notwithstanding the fact that the national government is disposing of its lands at the rate of from fifteen to twenty million acres a year, there is still left — if we count Alaska — almost as much territory as we have alienated since the adoption of the Constitution. Much of this is worthless or unavailable; but irrigation and dry farming are constantly reclaiming large districts formerly regarded as worthless, and the railways and some of the Western states still possess large quantities of ordinary farming land which, fortunately, they are willing to sell at low prices. All in all, we are tempted to say, there is still enough cheap land to exert in the West that influence upon industry, wages, and the distribution of wealth generally which has come to be the distinguishing mark of the American social economy. But this is a matter of dispute.

Fifteen sixteenths of the population reside in the eastern half of the United States, and in the East land has become costly, trade and manufactures taken together have outstripped agriculture, and a large majority of the people lack the inclination and necessary training, even if they possessed the courage and energy to avail themselves of the cheap land of the West. Whatever the amount of this cheap land, its importance has diminished and must continue to diminish, as an outlet for the population upon whose economic condition it formerly exerted so salutary an influence. Considering the population as a whole, the conclusion seems irresistible that we have reached, if indeed we have not already passed, the parting of the ways; and the assistance that in the past free land rendered in maintaining wages and restraining the evil tendencies of the modern system of capitalistic production must in the future be secured from other sources. The distinctive Americanism of the past was generated, as has been said, in the performance of our national task "of winning a continent from nature and subduing it to the uses of man";[1] it was a product of the frontier. But the frontier has now disappeared.

QUESTIONS

1. What peculiar characteristics mark the economic stages of the United States?

2. Is the pastoral stage through which the people of our Great Plains have passed essentially different from the pastoral stage through which the people of Israel passed?

3. Enumerate the great sectional struggles which have disturbed the United States. Why does radicalism accompany the frontier?

4. Has the frontier and the work of settlement left a *permanent* impress upon the American people? Of what kind?

5. How rapidly is the population increasing at the present time? Are the richer or poorer classes multiplying more rapidly? Can you state the reason?

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[1] Bogart, *Economic History of the United States*, p. 1.

6. What are the distinctively economic factors of the negro problem?

7. When did the immigration problem first alarm residents of this country? What charges are directed against the "newer immigrants"?

8. Have we shown an ability to assimilate all kinds of immigrants? What has been the historical policy of this country toward immigration?

9. What part did the public domain play in bringing about and preserving the Union? in maintaining wages?

10. How does the growing size of the country modify the influence exerted by free land?

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CHAPTER VI

THE ECONOMIC DEVELOPMENT OF THE UNITED STATES

– Details – *(Continued)*

In the preceding chapter attention was confined to certain fundamental and peculiarly American conditions which have influenced the economic development of this country. They form the background and setting of the picture. When we come to fill in the details, however, the general effect is very similar to that produced by the description of English industrial development given in Chapter IV. There are differences, of course, — differences important enough to make this separate discussion of American economic evolution necessary. But, on the whole, it is surprising how rapidly we have developed the industrial maladies and economic problems of the old world.

Mercantilism in America. — In the American colonies, as in England itself, the Industrial Revolution was preceded by a period in which trade and industry were subject to minute regulation by the government. Bounties were freely offered in several colonies for the manufacture of leather, iron, paper, silk, and cloth; land grants were made and taxes remitted particularly in the support of the iron industry; and in order to encourage the home manufacture of shoes, for instance, the General Court of Massachusetts in 1640 commanded that every hide "be sent to a tannery under penalty of a £12 fine," while "leather searchers" were appointed to see that the law was obeyed.

This early colonial regulation was restrictive as well as protective. In the New England colonies, in the seventeenth century, laws were repeatedly passed prohibiting idleness, fixing the hours of labor, and prescribing rates of wages, with appropriate penalties for workmen who took or employers who paid more than the legal rate. In the Boston Town Records of 1635, for instance, we find this resolution: "That Mr. William Hutchinson, Mr. William Colborne and Mr. William Brenton shall sett pryces upon all cattel, comodities, victuals and labourers and Workmen's Wages and that noe other prises or rates shalbe given or taken."[1] But the restrictive laws, in general, failed dismally. The abundance of cheap land and the independent spirit generated by the pioneer life prevented the enforcement of obnoxious colonial laws, and eventually led the colonists into armed resistance against the restrictive legislation of the English government.

English Colonial Policy and the Navigation Acts. — In accordance with mercantilist views of colonial relationships, English statesmen of this period looked upon a colony as a community which was to supply raw materials for the industries of the mother country, secure its manufactured goods from the mother country, and so far as trade with the rest of the world was concerned, buy and sell through the mother country. In accordance with this general policy, England gave bounties for the production in America of raw materials such as flax, indigo, naval stores, barrel staves, and the like, but restricted manufacturing proper — by prohibiting, for instance, the erection of mills for slitting or rolling iron, and furnaces for making steel — and fettered our commerce in a variety of ways. It is unnecessary to enter into the details of this conflict, which is familiar to every student of American history. The English laws were not so severe as might be inferred from our brief statement of their nature and purpose; they were laxly enforced; and it is to be remembered that England encouraged some industries while she attempted to destroy others. English colonial policy of this period was not so much malicious as mistaken. The important points for us are these: that it did not seriously hamper the development of American industry in general, while it did strengthen and stimulate in the American people that spirit of individualism which the industrial opportunities of the new world and the frontier conditions of the time combined to create. As a consequence the new nation, created in 1789, was pledged to the doctrine of individual liberty, and its constitution contained specific guarantees of personal freedom not only in matters political, but in industrial and social relationships as well.

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[1] *Governor Winthrop's Journal*, printed at Hartford, 1790, p. 188; reprint of 1853, pp. 377–381.

American Industries in 1776. — When the Revolutionary War broke out, American industry was still in a primitive stage. The extractive industries were, relatively, the most advanced. Large quantities of lumber and timber products were exported to Europe; the fisheries were in a prosperous condition; and shipbuilding had reached a really remarkable stage of development, — in 1775 "nearly one third of the tonnage afloat under the British flag had been built in American dockyards." Agriculture, however, was carried on in the most wasteful and unscientific way, owing to the cheapness and fertility of the soil; and manufacturing was still in the household stage. In the Middle and New England Colonies spinning and weaving, the manufacture of shoes and food products, were carried on within the home; and, in fact, the typical farm household of this period constituted almost an independent economic unit, raising or making what its occupants consumed, and buying little save salt and a few necessary iron implements. Of manufacturing for sale and export, however, there was little worth mention. The absence of adequate means of transport was largely responsible for this state of affairs. The roads were little more than widened Indian trails. Some years later, when conditions were considerably improved, the roads were still so poor that " Madison spent a week going from New York to Boston by stage, while the cost of cartage of a cord of wood for a distance of twelve miles was three dollars." Agriculture, however, was the dominant industry of the country. In 1787 less than one eighth of the working population was engaged in manufactures, fishing, navigation, and trade combined.

The Industrial Revolution in America. — The Industrial Revolution was sudden, and in its consequences momentous in America as well as in England. The Revolutionary War, by interrupting trade with Europe, threw the American people upon their own resources: goods that had hitherto been imported had now to be manufactured at home; a large number of new industries sprang up rapidly; and the idea became prevalent that the new nation must make itself industrially as well as politically independent of the old world. The state governments endeavored to foster the new industries by protective tariffs, and this policy was later continued, in a moderate form, by the federal tariff act of July 4, 1789. Prizes were offered by various societies, and even by certain state governments, for the introduction of the new machines and methods which were revolutionizing industry in England. Attracted by one of these offers, Samuel Slater, "the father of American manufactures," who had been apprenticed to a manufacturer of cotton machinery, and was particularly familiar with Arkwright's machines and processes, came to this country in 1789, and in the following year started the first cotton *factory* at Pawtucket, Rhode Island. 1790

The factory system secured its first real foothold, however, between 1806 and 1815, when the Non-Intercourse Acts, the Embargo, and the War of 1812, by suppressing trade with Europe, forced the American people to do their own manufacturing, and turned large amounts of capital, which had previously been employed in trade and shipping, into manufactures. The growth during this period of isolation was extraordinary. In 1804 only four cotton mills were in operation. "In 1807 there were fifteen cotton mills running 8000 spindles and producing 300,000 pounds of cotton yarn annually. In 1811 there were eighty-seven mills operating 80,000 spindles, producing 2,880,000 pounds of yarn per year and employing 4000 men, women, and children. In 1815 500,000 spindles gave employment to 76,000 persons, with a payroll of $15,000,000 per year."[1] It is hardly necessary to add that when resumption of peace with Great Britain opened the new American industries to the fierce competition of the older English manufacturers, increased protection was granted in the tariff acts of 1816, 1824, and 1828. A little later, in the Middle Atlantic and New England states, the period of factory production had fully arrived. A separate class of wage earners was appearing, who were especially appealed to by new arguments concerning wages in the tariff discussions; workingmen's parties were organized; strikes and trades unions multiplied, and the latter were combined into municipal and state federations; in the thirties and forties radical reformers linked the "white slaves" of the North with the negro slaves of the South and worked for the abolition of both "wage and chattel slavery"; the factory town and the city slum became recognized economic conditions, and the dangers of the latter were multiplied by the heavy immigration after 1845. By the middle of the nineteenth century the Industrial Revolution was in full sway, and the economic triumph of modern capitalism was assured.

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[1] Coman, *Industrial History of the United States*, p. 181.

As might be supposed, the Industrial Revolution produced far less suffering and want in the United States than in England. The evils attributable to the Industrial Revolution in England were of two kinds. One arose from the rapidity and magnitude of the industrial change itself; the other was due, not to the change, but to the system under which the new industry was conducted — the system of capitalistic industry working in a régime of practically unregulated competition. In our country the evils resulting from transition alone were slight. Our manufacturing industries were scarcely started when the spinning jenny, the power loom, and the steam engine were introduced, and so almost from the beginning the factory system seemed the natural one. Thus, the change which in England was a *revolution* was in America an *evolution*, a process of construction with little destruction. And for a time even those evils inherent in the system itself were mitigated and disguised by the immense natural wealth of this country, the ease with which land could be obtained, and the unusual mobility of our working people, which permitted them to take quick advantage of the unusual opportunities open to them.

But, as will appear in the following pages, these ameliorating agencies served only to check and delay, not to destroy, the evil possibilities of the new industrial system. As free land has become less and less abundant, the wage earners of the East have had forced upon them conditions of life which have kept down, although they have not absolutely lowered, their standard of life. Extremes of wealth and alienation of social classes have become so great as to arouse the apprehension of all thoughtful men. Labor riots that call for military interference testify to the fact that we have not escaped, that in the future we can hope less and less to escape, the friction that accompanies all unfraternal relations among men. We have been greatly blest in that we have escaped the worst results so long.

The Development of Agriculture. The presence and power of those economic forces which softened the asperities of the new industrial system in America are revealed in a particularly striking way in the history of American agriculture. In England, it will be remembered, the changes in agriculture intensified the evils of the industrial revolution, led to the consolidation of small Eng farms into large landed estates, and put the actual business of farming largely into the hands of tenants. In the United States, however, practically none of these tendencies has shown itself — at least, not in an alarming form. There is a constant migration from the country to the city, to be sure, but this is in no sense due to the consolidation of farms. Thus between 1870 and 1900 the proportion of all breadwinners (persons ten years of age and over gainfully occupied) engaged in agriculture fell from 47.6 to 35.6 per cent. On the other hand, more persons are still employed in agriculture than in any other branch of industry; and owing to the opening up of old Indian reservations for farm settlement, the constant alienation of the public domain, and the breaking up of Southern plantations and "bonanza farms," the number of farms seems to have increased quite as rapidly as the general population.

The great improvement which has taken place in agricultural methods and machinery enables the relatively smaller farm population to satisfy the demand for agricultural produce even more completely than in the past. That is to say, the machine power introduced into farming has more than taken the place of those persons and their descendants who have abandoned agriculture. It has been estimated, for instance, that in 1895 it actually required only about 120,000,000 days' work to produce the nine principal farm crops of that year, whereas, had they been produced by the methods and machinery of 1850, at least 570,000,000 days' work would have been required.[1]

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[1] H. W. Quaintance, "The Influence of Farm Machinery on Production and Labor," Publications of the American Economic Association, Third Series, Vol. 5, No. 4, pp. 27–29.

Notwithstanding the improvement of farm methods and machinery, the agricultural industry shows no real tendency to assume a capitalistic form. The average farm of to-day is smaller than it was fifty years ago, and although it represents somewhat more capital, the increase of the capital investment is not great, is much less, in fact, than the increase in the wealth of the average individual. Moreover, a majority of American farmers own the farms they cultivate, and the statistics indicate that it is still comparatively easy for an enterprising farm laborer to rise to the status of tenant and from that condition into the ranks of the farm proprietors.[1]

Manufactures. — In agriculture, as we have seen, the passage of time has not brought about a highly capitalized form of industry, the typical farm represents only a small investment and is tilled by its owner, there is no sharp distinction between employees, unions of wage earners are practically unknown, and passage from the wage earning to the employing class is still comparatively easy. In manufactures, practically all these conditions have been reversed since the end of the eighteenth century. And it is the tone of the manufacturing industry rather than that of agriculture which represents the keynote of the modern economic movement, because agriculture is constantly decreasing while manufacturing and allied industries are constantly increasing in relative importance. At the beginning of the last decade of the eighteenth century, seven eighths of the working population were employed in agriculture, and the manufactured products of the country were valued at $20,000,000. Half a century later, in 1840, 77.5 per cent of the breadwinners were employed in agriculture, 16.5 per cent in trades and manufactures alone, and the products of the manufacturing industries were valued at $483,278,215. Fifty years later, in 1890, 35.7 per cent of the workers were in agriculture, 24.4 per cent in manufacturing and mechanical pursuits, and the manufactured products were valued at

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[1] Tenancy seems to be increasing in the United States, but the authorities differ in their interpretation of the phenomenon, some regarding it as a favorable and others as an unfavorable sign. This and other questions touched upon in the preceding paragraphs are discussed at greater length in a later chapter.

$9,372,437,283. In 1905, to cite the latest figures, the value of the products had reached the enormous sum of $16,866,706,985. The change in the character of the industry has been even more striking than its growth and expansion. In the first place, machinery and capital have become increasingly prominent. In 1850, for instance, $556 worth of capital was invested for each wage earner, while in 1900 the average amount of capital per wage earner was $1850.[1] In the second place, the organization of the industry has changed, so that the individual owner and ordinary partnership are rapidly being replaced by the corporation. At the beginning of the nineteenth century, corporations, though not unknown in commerce and banking, were very uncommon in the manufacturing industries. In 1905, incorporated companies employed 70.6 per cent of the wage earners and manufactured 73.7 per cent of the goods produced in all the manufacturing industries.

This change in organization has been a powerful factor in destroying the personal relation between the owners of capital and the wage earners who man their plants, and has thus helped to widen the growing breach between capital and labor. It has also contributed greatly to the concentration of industrial control. Law and custom in this country have combined to make the small stockholder in the largest corporations a virtual nonentity so far as practical participation in the management of the corporation is concerned; and the individual or clique of "insiders" who own a bare majority of the stock rule the business despotically. Incorporation, then, instead of introducing a greater measure of real industrial coöperation and thus democratizing industry, has too frequently turned out to be an ingenious device by which energetic promoters borrow or secure the spare savings of the community on the most flexible terms and with a minimum of responsibility. The corporation thus, while it appeared to be diffusing the ownership of industry, has in reality worked toward the concentration of industrial *control*.

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[1] Owing to variations in the definition of "capital" and other similar changes, the statistical comparisons made in this and the preceding paragraph are not very accurate, and are to be accepted as illustrations rather than measurements.

Other forces, moreover, have been working toward industrial concentration, the most powerful of which, perhaps, has been excessive competition. For many decades in this country the unrestricted competition of rival manufacturers made them almost Ishmaelites in their business relations with one another. Tied down to their large investments of fixed capital, they were compelled to stand and fight without quarter. In every such war the number of combatants tends to decrease. As old rivals are killed off, the successful acquire greater skill and greater power in the conflict. With the passage of time greater and greater equipment is required to give any hope of a successful struggle, and some of the contestants, learning prudence from the struggle, combine to increase their fighting power. The inevitable result, whether through simple survival of the fittest or through combination, is a marked increase in the size and importance of the industrial unit. Between 1900 and 1905, for instance, the number of establishments in the factory industries increased only 4.2 per cent, but their capital increased 41.3 per cent, and the value of their products 29.7 per cent. In many of our most important industries the number of establishments is actually decreasing. In the manufacture of agricultural implements between 1880 and 1905, to take a single illustration of the many that might be cited, the number of establishments decreased from 1943 to 648, while the capital grew from $62,109,668 to $196,740,700, the wage earners from 39,580 to 47,394, and the value of the products from $68,640,486 to $112,007,344. There are industries, of course, in which no such consolidation has taken place, but they are unimportant in comparison with those in which it has. The extent to which the giant industry and large-scale production have come to dominate our manufacturing industries in the year 1905 is shown in the following table, which will repay careful study. Establishments of the largest size, *i.e.* those whose annual output exceeds $1,000,000, constitute less than 1 per cent of the number of establishments, but manufacture nearly 40 per cent of all the goods. Nearly three fourths of the wage-earners are employed in industries having a capital of more than $ 100,000 each.

TABLE I

Statistics of Manufactures classified by Size of Establishments as measured by Value of Products. United States: 1905

		Establishments with Annual Products worth				
	All Establishments	Less than $5000	$5000 but less than $20,000	$20,000 but less than $100,000	$100,000 but less than $1,000,000	$1,000,000 and over
Establishments — Number	216,262	71,162	72,806	48,113	22,281	1,900
Per cent	100	32.9	33.7	22.2	10.3	0.9
Capital — Amount.	$12,686,265,673	$165,317,454	$531,130,513	$1,654,931,649	$5,550,459,933	$4,784,426,124
Per cent	100	1.3	4.2	13.0	43.8	37.7
Wage Earners — Number. .	5,470,321	106,366	419,566	1,027,507	2,516,429	1,400,453
Per cent	100	1.9	7.7	18.8	46.0	25.6
Wages — Amount	$2,611,540,532	$40,941,804	$188,290,652	$477,153,001	$1,194,450,018	$710,705,057
Per cent	100	1.6	7.2	18.3	45.7	27.2
Misc. Expenses — Amount	$1,455,019,473	$21,399,462	$70,330,717	$199,395,653	$657,328,272	$506,565,369
Per cent	100	1.5	4.8	13.7	45.2	34.8
Cost of Materials — Amount	$8,503,949,756	$61,360,114	$326,998,295	$1,039,497,004	$3,329,508,388	$3,746,585,955
Per cent	100	0.7	3.8	12.2	39.2	44.1
Value of Products — Amt. .	$14,802,147,087	$176,159,127	$751,236,681	$2,130,227,091	$6,116,068,017	$5,628,456,171
Per cent	100	1.2	5.1	14.4	41.3	38.0

Recently the movement toward large-scale industry has taken on another phase. In addition to concentration or *centralization* of industry, we are now having a rapidly increasing *integration* of industry. Large business concerns are finding it profitable to carry on under one management several closely related industries. For illustration, take the case of the United States Steel Corporation. Here we have united under one management the American Bridge Company, the American Sheet Steel Company, the American Steel Hoop Company, the American Steel and Wire Company, the American Tin Plate Company, the Federal Steel Company, the Lake Superior Consolidated Iron Mines, the National Steel Company, the National Tube Company, and the Carnegie Steel Company. Of the last itself, Mr. Charles M. Schwab says, in his testimony before the Industrial Commission (Vol. XIII, p. 448): "The Carnegie Company were large miners of ore — mined all the ore that they required themselves, to the extent of over 4,000,000 tons per year. They transported a large percentage of it in their own boats over the lakes; they carried a large percentage of it over their own railroad to their Pittsburg works, and manufactured it there, by the various processes, into a great variety of iron and steel articles — I think perhaps a larger general variety of steel articles than almost any other manufacturing concern."

Transportation and Railways. — The industrial concentration of which we have been speaking does not necessarily lessen competition at all. It merely gives the business into the hands of increasingly powerful rivals among whom competition may be all the more bitter because of the size of the contestants. But in the principal transportation industries time has amply demonstrated that another rule prevails: competition has utterly failed to protect the consumer, and the progress of consolidation has operated to emphasize and strengthen the inherently monopolistic character of the industry.

790-1816

The history of transportation in this country since the establishment of the Union falls into three stages. The "turnpike period" extends from 1790, the year in which the first turnpike was constructed, until 1816, when steam navigation upon the Ohio

River became fairly regular. The second stage, the "river and canal period," ends with the panic of 1837, and is marked particularly by the introduction of steam travel on the Hudson (1807), the Ohio, and Mississippi rivers (1808 to 1817) and the opening of the Erie Canal in 1826. The last stage, the "period of the railway," extends from about 1840 to the present time. Of course, in contrasting these periods, it is not meant to suggest that canals were not built before 1790, or that turnpikes are not important at the present time. As a matter of fact, a canal was built in Orange County, New York, as early as 1750; and there are few economic needs of greater importance at the present time than the improvement of our roads. These "periods" merely indicate the kind of transportation facilities which at different times have been most prominent in the minds of the people.

2
1837
3
1840-

In the development of the railway, certain approximately definite stages may also be distinguished. Between 1830 (when the first railway — the Baltimore and Ohio — was opened for traffic) and 1840, the railways were short, local lines used in large degree to supplement or piece out the rivers and canals. In the next period, 1840 to 1870, many new roads were built, and the process of "linear consolidation" — the linking together of local companies into through trunk lines — began. By 1869 both the New York Central and the Pennsylvania had effected through connections with Chicago. In the same year, the completion of the Central and Union Pacific railways linked the Pacific Ocean with the eastern railways, and the continent was spanned.

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1
1830-4
2
1840-7
3

The period between 1870 and 1890 is marked by three striking developments. First, it was a period of feverish expansion: the railway mileage of the country increased from 52,000 to 160,000 miles, more than 200 per cent. Secondly, the completion of several through routes from the Atlantic seaboard to Chicago brought about a period of destructive competition, which led to discrimination and rebating in through traffic and the overcharging of local or non-competitive traffic. "Wherever competition appeared, discrimination followed; and in the scramble for business the stronger shippers were favored at the expense of the weaker. Where there was no competition the public felt that they were

1870-
a
b -
c

Pools etc —
Commissions —

being oppressed by a monopoly, to make up for sacrifice rates elsewhere — a feeling which was intensified by the absentee ownership of the western roads."[1] Thirdly, this condition of demoralization led to a double reaction. The railways sought to restrain competition by the creation of pools and traffic agreements, while the people sought to protect themselves through legislation and the creation of railway commissions. The Federal or Interstate Commerce Commission was established in 1887.

The last period, from 1890 to the present time, has been marked by an unprecedented amount of consolidation and combination among competing roads, and by a general acceptance of the truth that the railway industry is inherently monopolistic and must be subjected to public control. Thus, at the same time that the control of the magnificent railway system of this country — greater in extent than all the railways of Europe combined — has fallen into the hands of seven or eight groups of men or "interests," dominated by a number of men small enough, some one has said, to sit about the same table, the people themselves have perfected administrative machinery strong enough, it is hoped, to hold the great monopoly in check. Complete monopoly and effective public control are being perfected at the same time, and with this dual consummation there closes a great epoch in economic thought and public policy. The new Interstate Commerce Act of 1906 is a public recognition of the fact that the old problem of private competition *versus* public regulation has given way to the new problem of public regulation *versus* public ownership.

It would be almost impossible to exaggerate the part which transportation agencies, and particularly the railways, have played in the economic development of this country. Ours is a country of "magnificent distances," and because of this fact, it was particularly necessary that superior means of communication and transportation should be early introduced, if the country was to be held together. After the Revolutionary War there was real danger that the settlers west of the Alleghanies would be completely alienated. Washington was quick to realize this fact. "The Western settlers," he wrote to the governor of Virginia, shortly after the Revolutionary War, "stand as it were upon a pivot. The touch of a feather would turn them any way. They have looked down the Mississippi until the Spaniards, very impoliticly, I think, for themselves, threw difficulties in their way; and they looked that way for no other reason than because they could glide gently down the stream, without considering, perhaps, the difficulties of the voyage back again, and the time necessary to perform it in; and because they have no other means of coming to us but by long land transportations and unimproved roads."

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[1] H. C. Emery in *The Cambridge Modern History*, Vol. 7, p. 706.

This danger was averted by the building of the Cumberland Road, the introduction of steam navigation on the Ohio, and the completion of the Erie Canal. Later it looked as if the use of the Mississippi and other natural avenues of communication would link the Middle West more closely to the South than the northeastern states, thus giving the South a preponderant influence in the inevitable struggle over slavery. This problem, however, was solved by the railways, which, unlike the rivers, ran east and west rather than north and south. The railway was thus a strong factor in the preservation of the Union. And since the Civil War, Western settlement has followed the railroad. It has been the great pioneering agency of the last half century, and is entitled to as much credit as the public land policy for the rapid settlement of the West.

In the development of our transportation facilities, however, the State has been from the very first an active partner of private enterprise. Not only has the State built roads, canals, and railways of its own, but it subsidized the private companies which engaged in similar enterprises, with prodigal liberality. Of the total state debts — $170,806,187 in all — contracted prior to 1838, $60,201,551 were chargeable to canals, $42,871,084 to railways, $52,640,000 to banks, $6,618,868 to roads, and $8,474,684 to miscellaneous objects. After the panic of 1837 there was little direct construction by the State of internal improvements, but national, state, and local governments vied with one another in assisting private companies by exemptions from taxation and by grants of land, money, and credit. How much these subsidies amounted to we do not know, but the aggregate must have been enormous, as appears from the statistics of land grants. "During the twenty-one years between 1850 and 1871, at which time land grants were discontinued, more than 159,000,000 acres were placed at the disposal of railroad corporations by the federal government and 55,000,000 by the state governments."[1] In their origin and genesis, therefore, as well as in their essential nature, the railways are quasi-public institutions.

The Labor Movement. — In the preceding pages we have seen how capitalistic industry under a régime of free competition passed from an earlier period of cut-throat rivalry to a later period of combination amounting in many cases to monopoly. A similar phenomenon is discernible in the labor movement. At the beginning of the nineteenth century there were probably less than a dozen trades unions in the United States, and we actually know of the existence of only one. Between 1825 and the panic of 1837, however, they multiplied rapidly, and efforts were made to unite the scattered "locals" of separate trades into broader national unions, and to confederate the unions of different trades into municipal and district federations. These efforts were only partially successful, however, and it was not until after 1850 that permanent national unions were established, and not till the organization of the Knights of Labor in 1869 that a fairly permanent national federation was created. The Knights of Labor reached the zenith of its power about 1886, and since the panic of 1893 its place has been gradually taken by the American Federation of Labor, with which most American unions, except the Railway Brotherhoods and the socialistic unions west of the Mississippi River, are affiliated. In 1893 the membership of the American Federation of Labor numbered about 250,000. By 1906 it had grown to approximately 1,444,200. These figures give some idea of the strikingly rapid growth of trades unionism in the last fifteen years. As the membership of the American Federation of Labor is usually understated, and as there are probably from 500,000 to 700,000 members in organizations not affiliated with the American Federation, we conclude that the aggregate membership of American labor organizations at the close of the year 1906 amounted to about 2,300,000 persons, mostly men.

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[1] *Cf.* Bogart, *Economic History of the United States*, pp. 195, 308, *passim.*

There are thus at least five periods distinguishable in the history
1 of American trades unionism: the *germinal period*, 1789–1825; the
2 *revolutionary period*, 1825–1850, so called because of the close connection in this period between trades unionism and more radical
reforms such as socialism and coöperation; the period of *nation-*
3 *alization*, 1850–1865; the period of *federation*, 1865–1893; and
4 5 the period of *collective bargaining*, 1893 to the present time. We speak of the present epoch as the period of collective bargaining because it is only in recent years that employers and the general public have recognized that the trades union is here to stay, and must be regarded as an irrepressible, permanent institution with which many employers of labor must bargain, whether they like it or not.

The avowed aim of the trades union is a complete combination of all the workers in a given occupation or industry. The Brotherhood of Locomotive Engineers, for instance, probably counts among its members more than 90 per cent of all the locomotive engineers in North America, although there are few trades which are so completely organized as this. With the passage of time, moreover, the trades unions have made increasing use of the monopolistic principle of the closed shop — the principle which leads union men to refuse to work with nonunion men, and which finds expression in the trades-unionist's new commandment: "Thou shalt not take thy neighbor's job." Very recently several authoritative court decisions have held that labor combinations, particularly national or international combinations, are contracts or agreements in restraint of trade, and as such are illegal under the federal or state anti-trust acts. This is but official recognition of the fact that the forces which have led to the rapid development of trades unionism since the Industrial Revolution are the same forces which explain industrial combination and consolidation. The anti-trust acts need amendment: not all combinations in restraint of trade, but only unreasonable combinations, should be prohibited.

The development of powerful combinations in the labor world has engendered a counter movement among the employers, which expresses itself concretely in the modern *employers' association*. Such organizations are not new; we have record of such an association among the master shoemakers of Philadelphia in 1789. But in recent years these associations have become permanent, formal, and aggressive. They fight the labor organizations with their own weapons, matching the lockout against the strike, the black list against the boycott, and the "labor bureau" against the "unfair list" with which the reader of trades-union journals is familiar. Most of the employers' associations, like most of the trades unions, have associated themselves for common action in a large national federation, the Citizens' Industrial Association of America, with which, in December, 1903, there were affiliated sixty national employers' associations, sixty-six state and district associations, and three hundred and thirty-five local or municipal associations of employers.

The bitter conflict between organized labor and organized capital has forced the State, in the interest of industrial peace, to inaugurate "Wage Boards" and Boards of Arbitration and Conciliation. Some of these, such as the New Zealand Court of Arbitration, are empowered to enforce their awards upon employers and employees; while others, like the Canadian and some of the American State Boards of Arbitration, have no power to settle disputes authoritatively, although they may make "compulsory investigations" and publish their finding as to the equities of the case. These and similar topics, however, are reserved for more detailed discussion in a later chapter.

State Regulation of Industry. — The growing interference of the State in the conflict between capital and labor brings us naturally to the general subject of the State in relation to industry. When the American colonies were planted, mercantilism was the dominant political philosophy; but, as we have seen, mercantilism gave way to a philosophy of individualism in the eighteenth century, under the combined influence of the reaction against the English Navigation Acts, the natural antipathy of a frontier community to legal restraint, the philosophy of Locke, and in a minor degree the teachings of the French physiocrats. The triumph of individualism, as a philosophical system, came at the critical period when our State and federal constitutions were in the making, and it thus became intrenched in the organic law of the nation, giving constitutional sanction to the doctrine of *laissez-faire*, and establishing a constitutional guarantee of *freedom of contract*, in accordance with which adult men were left "free" to work as long as they "pleased" (or were compelled), for whatever wages they were "pleased" (or forced) to accept. Under the influence of these doctrines, for instance, our courts have annulled such wholesome regulations as laws prohibiting payment of wages in store orders, and statutes limiting the hours of labor of men in bakeshops, or other exhausting occupations. Decades of experience have amply proved that the average wage earner is too weak to protect himself against many evils; but our constitutional law has made it exceedingly difficult for the State to protect him. Fortunately, however, the American people have a fashion of bend-ing their constitutional law to fit the facts, not blinding themselves to the facts by worshiping the law; and in recent years the Supreme Court of the United States has progressed so far as to sanction a state law restricting the hours of labor of men in underground mines and smelters, although many of the state Supreme Courts are far less enlightened.

It is impossible to show in detail how the free trade and individualistic tendencies of the Revolutionary period gave way to a constantly growing programme of State interference. The doctrine of *laissez-faire* was never adapted in its entirety, and year by year we have moved farther and farther away from it. State interference began with the adoption of a tariff act in 1789, "for the support of the government, for the discharge of the debts of the United States, *and the encouragement and protection of manufactures*"; reached almost a maximum in the Embargo Act of 1807; showed itself in the policy of internal improvements and State aid to turnpike, canal, and railroad companies; brought us the great mass of labor and factory legislation which has been adopted by so many states since the Civil War; led in turn to the Interstate Commerce Act of 1887 and the Sherman Anti-Trust Act of 1890; and finally culminated in the new Interstate Commerce Act, the National Meat Inspection Law, and the National Pure Food Law. Excessive competition among laborers, which forced them to accept work under conditions destructive of physique and morals, has led to the factory acts, prohibition of child labor, and limitation of the hours of labor of women; excessive competition leading to the adulteration of products and their manufacture under insanitary conditions has given us the Meat Inspection and Pure Food laws; excessive competition among corporations, leading to combination and oppressive monopoly, has brought us the anti-trust acts and regulation through state and national commissions. Whether the individualistic character of industrial society endures or disappears, individualists and socialists alike are now agreed that the State must interfere. As a prominent English statesman expressed it, "We are all socialists now," although he merely meant by this statement that the passive theory of government has been wholly discredited.

Up to the present time State interference has had as its principal object the improvement and preservation of competition. The conscientious manufacturer who would not poison consumers for the sake of swelling his profits, the high-minded employer who would not "sweat" women and children merely to reduce the cost of production, the delicately scrupulous shipper who would not undermine a rival by forcing a common carrier to pay him rebates, — all these have suffered as much from the abuses of competition as the general public itself. Industry under the competitive régime is a rough game played for high stakes, and if it is to be played fairly, there must be intelligent rules of the game and an umpire powerful enough to enforce them upon all contestants alike. If the manufacturers of Massachusetts are prohibited from employing children under fourteen years of age while those of South Carolina are encouraged to do so, decency is penalized, and the victory goes to the contestant guilty of the greatest number of fouls.

State interference, as we have said, has had as its principal object the maintenance of competition upon a higher and more wholesome basis. But this has not been its sole object. Our recent regulation of public utility companies aims not to bolster up or preserve competition among such companies, but to introduce *a substitute* for competition; and the strong movement now on foot to modify the Federal Anti-Trust Act is partially based upon a recognition of the possibility that *perhaps* regulated monopoly may prove on the whole more beneficial than regulated competition. Upon this point we pass no judgment; time alone can tell. Whether it is desirable, whether in the long run it will be possible, to check the monopolistic tendency of the age and thus maintain a competitive as distinguished from a socialistic régime of industrial society, may be said to be the supreme economic problem of the twentieth century.

QUESTIONS

1. How do you account for the failure of the early colonial restrictive legislation?

2. What was the effect of English colonial policy and the Navigation Acts upon American manufactures? shipbuilding? American political philosophy?

3. What was the condition of American agriculture in 1776? of manufactures? shipbuilding? transportation?

4. Was the Industrial Revolution as important in this country as in England? Was it attended with as much suffering? Why?

5. What part has been played by war in the tariff and industrial history of the United States?

6. In what respects has the agricultural development of this country differed from that of England? from that of the manufacturing industry?

7. What changes have taken place in the organization of manufacturing industries in the last century?

8. What are the principal causes and effects of industrial concentration?

9. What is the difference between industrial concentration and integration? between large-scale production and monopoly?

10. What stages are distinguishable in the history of transportation and railways in this country?

11. What part did the State play in the development of railways? Is railway consolidation a recent phenomenon?

12. What movement has the development of trades unionism elicited from employers? from the State?

13. How did the doctrine of non-interference secure such a strong foothold in American constitutional law? What has been the principal object of State interference up to the present time?

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BOOK II

PRINCIPLES AND PROBLEMS

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PART I

INTRODUCTION

CHAPTER VII

ELEMENTARY CONCEPTS

In political economy many of the technical terms employed are often misunderstood because the same words are used in ordinary speech with inconsistency and confusion. We have often to choose between the alternatives of being inconsistent and of violating current usage. The present chapter is devoted to a definition of some of the fundamental notions in political economy.

The statement is sometimes made that economics is a mere bread-and-butter science, and this charge is not without some foundation, since the science studies men in their endeavor to make a living, but it would be an error to suppose that we are concerned with only the sordid aspects of human nature. This is apparent if we enumerate the motives which impel men to acquire wealth.

Motives in Economic Activity. — (1) There is, in the first place, the endeavor to satisfy one's strictly personal wants, giving rise to the struggle for food, shelter, comforts, amusement, etc. These things are wanted for their own sake, because of the pleasurable effect which they produce upon the individual acquiring them. We have here, in short, the motive of self-maintenance and development. (2) But every normal individual feels such a degree of affection for certain other people that he is also anxious for their maintenance and development. Striving for the welfare of others is a second motive which impels men to labor for the acquisition of material things, and in many cases is more effective as a spur to endeavor than the first. A man will hold himself to the daily grind more persistently when he feels some one

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is dependent upon him than when he is standing alone. (3) A
3 third motive is the desire to gain the esteem of one's fellows.
This motive may take the form of an endeavor to do one's part
and to be deserving of the companionship of the class of people
whom we admire. But much of our wealth acquisition is motived
by the hope of impressing our fellows with a sense of our own
importance, to show that we are successful, admirable, enviable.
When the income permits, old coats are discarded, not because
they cease to give protection, nor because they have become æsthetically
objectionable, but because the wearers wish to make a
favorable impression upon other people. Half the pleasure of
owning fine houses comes from the fact that most people do not
have them. This motive is not always a conscious one, since
our standards of beauty or propriety may themselves have been
the result in part of this desire for distinction. Now that bicycles
are within the means of workingmen, it is no longer fashionable
to ride these machines.

Somewhat similar to the desire for distinction is (4) the desire
4 for power. Men like to dominate and command their fellows,
and this want may be satisfied by means of the dollar as well as
with the sword; hence our Napoleons of Finance, Captains of
Industry, and Railway Kings.

5 (5) Again, the desire for activity for its own sake may be mentioned.
Enforced idleness is as painful as prolonged labor, except
to the degenerate. This desire may result in the production
of goods, but more commonly it requires the use of goods that
have been produced, as, for example, the implements of athletic
6 exercise. Finally, (6) religion or the ethical impulse may be an
important factor in controlling the economic activity of the individual.
Observe, for instance, the difference in the history of
communistic experiments in which religious feeling has been
strong and those in which it has been weak.

In this discussion the use of the word "motive" must not be taken to mean that all of the economic life of the individual is a consciously rational one, in which pleasures are balanced against pains in such a way as to secure the maximum surplus of satisfactions. Man is, it is true, a rational being, and as such pursues definite lines of action under the influence of conscious motives; but he is also a creature of instincts and habits, and much of the economic activity of the individual has to be interpreted as the working out of instinct and habit. We speak, for example, of such things as the "instinct of workmanship," the "habit of industry," the "habit of saving," and the like. The foregoing analysis of the motives in economic activity is, however, broad enough if we remember that "pleasure" is something that is not always consciously sought, but is often to be understood as the result of the functioning of inherited instincts and acquired habits.

Utility. — As a result of these motives, human beings are striving for the possession of certain things. These we call goods or utilities. To understand the meaning of the term "utility" in economics, we must recall the central fact of our science, that economics is a science of man. Goods may be of interest to chemistry and physics merely as things, but they have no significance whatever in economics until they come into relation with man. That fact in man which reflects upon things a new character and makes them goods is the fact of human wants. *Anything that is capable of satisfying a human want is a good or a utility.*

We need here to guard against a misunderstanding which the word "utility" sometimes suggests. There is a tendency to confound it with the idea of benefit, and to suppose that articles are useful just in proportion as they are beneficial. But in economics these two ideas cannot be taken as identical. Utility is the power to satisfy wants, not the power to confer benefits. Cigars are as useful in the economic sense as bread or books, for all three satisfy wants. Economic wants may be serious, frivolous, or even positively pernicious, but the objects of these wants are all alike "utilities" in the economic sense.

Free and Economic Goods. — But it is apparent that the wants we have mentioned are very unlike in character. Air and water, for instance, we seldom think of as things we want at all. We usually have them in abundance and without exertion, so that, though they satisfy wants as vital as any we know, we seldom spend any time thinking about them or our dependence upon them.

These are *free goods*, that is, goods that exist in quantities sufficient to supply all wants for them. Land in a new country is frequently a free good. But the list of things that are free is quickly exhausted. On the other hand, goods that are the objects of exchange are called economic. *Economic goods are those which exist in quantities less than sufficient to satisfy all wants for them.* Hence, we must economize in the use of them, are willing to undergo sacrifice to obtain them, and usually they are obtained only by exertion. It is, however, their scarcity and not the fact that they have cost labor that makes them economic goods. Land, for example, a free gift of nature, is one of our most important categories of economic goods at the present time.

Effort. — Fortunately, the supply of economic goods can, in most cases, be increased by human exertion applied to the materials of nature; but this exertion, if carried beyond a certain point, is irksome and has an important effect upon our economic life. If the labor force of the community were unlimited, a great many of the goods which we now use sparingly would be as free as air. Idealists have pictured for us a condition of the future where a few hours' work per day for each individual (an enjoyable means of working off surplus energy) will be sufficient to supply us with all of the goods that we have time to consume. At present, however, most of us find that our consumption is limited by the pain of additional effort. The end of our economic activity is, therefore, not only to get the greatest amount of satisfaction, but also to minimize the amount of painful labor.

Waiting. — Another fact that persists in our economic life is the necessity for waiting. The people of the United States wish to have the Panama Canal, but they cannot get it without years of waiting. They must spend millions of days of labor with no benefit in return for a long time to come. This waiting has often been called abstinence; but that suggests that the waiting is always painful, which is not true, as we shall see later in discussing the subject of interest.

Services. — Goods have been commonly divided into (1) material things, such as food, clothes, and books, and (2) personal services, such as the advice of a physician or lawyer.

The advisability of the distinction has been denied. Actors and singers, it has been urged, sell us perishable material things, *i.e.* light and sound waves of a peculiar kind. A recent writer also considers the distinction confusing because it obscures the fact that material things give off services just as human beings do. The piano yields services as does the singer. From this point of view persons are durable economic goods along with cattle and wheelbarrows. But, on whatever ground the distinction is made, it is important to recognize that among the things that contribute to our well-being are some — personal services — that are so perishable that they must be used with the direct coöperation of some other human being, while in other cases the services are, as it were, stored up in some inanimate material things, and the relation between the producer and consumer becomes an impersonal one. The service of a musician, for example, is personal and must be used the moment it is rendered; the purchase of a musical instrument, on the other hand, means the purchase in a lump of a long series of uses.

Personal Qualities as Goods. — The central point in our science is the conception of man in his relations to his environment, and hence it does not seem reasonable to include the personal qualities of men under the head of goods. Good health and technical skill make a man's services more valuable and assist him in the acquisition of wealth, but they are a part of him rather than of his possessions. It is his services that he sells, and it is these that we have placed under the head of goods. When we consider the importance of the priceless heritage which the present generation has received in the shape of knowledge and skill, we might make these a separate category as immaterial goods.

On this point Professor Marshall says: "German economists often lay stress on the non-material elements of national wealth; and it is right to do this in some problems relating to national wealth, but not in all. Scientific knowledge, indeed, wherever discovered, soon becomes the property of the whole civilized world, and may be considered as cosmopolitan rather than a specially national wealth. The same is true of mechanical inventions and of many other improvements in the arts of production; and it is true of music. But those kinds of literature which lose their force by translation may be regarded as in a special sense the wealth of those nations in whose language they are written. And the organization of a free and well-ordered State is to be regarded for some purposes as an important element of national wealth."

But knowledge does not exist in a disembodied state, and we shall omit nothing and avoid some confusion if we divide all goods into material things and personal services.

Wealth. — Political economists have frequently called economic goods wealth, thus excluding free goods. Some writers, however, include free goods in the idea of wealth. The truth is, that this term cannot be defined satisfactorily unless we specify whether we are speaking from the individual point of view or from the social point of view. From the individual standpoint, wealth means valuable claims to goods; from the social point of view, we shall regard wealth as an aggregate or stock of goods. This excludes personal services from the category of wealth, for they disappear as soon as rendered, and in an inventory of existing wealth, personal services would not appear.

Wealth and Income. — Wealth refers to the stock of goods on hand at a particular time. Real income, on the other hand, has reference to the satisfaction which we derive from the use of material things or personal services during a period of time. Money income should, perhaps, refer to the value of the goods consumed and services enjoyed, although in popular speech and by many economists the word is used in the literal sense of the net amount of money that comes in, whether it is spent for enjoyable things or is saved. In this book we shall use the term “money income” in the latter sense.

The Individual and Society. — One distinction runs all the way through political economy, and that is the distinction between the social and the individual standpoint. That which is wealth to the individual is often not wealth to society. An individual holding a government bond finds that he can exchange it for the things he wants almost as readily as though it were gold or some other commodity. He recognizes that the paper itself cannot be used directly for any useful purpose, yet he prizes it because it represents an indisputable claim on the services or commodities of other people. If the bond should be destroyed, the holder as an individual would suffer loss, but society as a whole would be neither richer nor poorer, and society, exclusive of the bondholder, would have gained at his expense. From the social standpoint the bond is not wealth at all, but only an evidence of a legal right to a part of the social wealth. All property rights are simply claims to a part of the social wealth or income. The claims to concrete, material things, such as farms and store buildings, are included by an individual when he enumerates his wealth; the farms and store buildings are social wealth. Again, in making an inventory of his wealth, an individual would not ordinarily include such an item as the post office, which is public and not private property; but, strictly speaking, the post office is owned jointly with other members of society. A successful patent is frequently looked upon as an item of wealth, but it is simply a means by which the owner gets more from other people in return for his services. If the patent is declared invalid, others gain what he loses (not counting the check to the inventive impulse). Again, "good will" in business is frequently paid for as though it were an economic good, and is wealth from the individual point of view, but it is not social wealth. If a business man loses his established trade, his competitors are the gainers; society as a whole is not affected. This distinction between individual and social wealth, however, is valid only when we look upon the social wealth as composed of concrete material objects. When we are measuring the amount of wealth in dollars, no such distinction can be drawn. To attempt to say how much an item of wealth is worth from the social point of view and how much from the individual point of view, would be futile. The owner of a franchise that is declared invalid suffers financial loss; the community suffers no loss, for the tangible property which yields the enjoyable services is not affected. Here is a valid distinction between the individual and social points of view, but from any point of view it cannot be denied that the selling value of the property has been decreased.

Wealth and Value. — In the preceding paragraphs wealth has been spoken of as consisting of particular things. A lead pencil and the year's crop of wheat are both wealth. How shall we measure the amount of wealth that these objects represent? Since the items of wealth are composed of very heterogeneous objects, we cannot use such units of measure as bushels, pounds, or feet. We must select a measure that has reference to some quality common to all kinds of wealth. This quality is the power to give satisfaction to those who have unsatisfied wants, and a measure based upon this quality is *value.* This is a subject which will be discussed in detail later, the valuation of goods and personal services being the central problem in economic theory. It is sufficient to say at this point that high value in an object implies the existence of important unsatisfied wants which this object is capable of satisfying. Thus, free goods have no value, not because they do not satisfy important wants, but because these wants do not ordinarily go unsatisfied.

Capital and Other Forms of Wealth. — Some material things, as well as personal services, yield satisfaction to human beings directly. From clothes, dwellings, food upon the table, musical instruments, and the like, we derive enjoyment directly. These are *consumption goods.* Other goods are of service only indirectly. A plow, we say, is useful, but we cannot eat or wear it. It simply helps to produce the things that we can enjoy. Such articles are *production goods.*

The distinction is a matter of degree. Even the food upon the table is not quite ready to be enjoyed. It must be handled with knives and forks. This has led some writers to make no distinction between wealth and capital goods. But it has been pointed out that great differences in degree are more important than many differences in kind. The distinction, it may also be noted, is not made on the ground of durability. Consumption goods may be very durable, such as a painting or work of fiction.

Production goods, again, are divided into *capital goods* and *land.* Land is a gift of nature; capital goods — machinery, warehouses, raw material, etc. — are produced by man. Other differences between these two classes will be discussed later.

Capital Goods and Capital Value. — Capital goods, as well as other forms of wealth, are of such a heterogeneous nature that we cannot measure them by such units as pounds or inches. Here, again, we must select some quality that is common to all of them, which is value, and this can be measured in terms of dollars. Very frequently the value of capital goods is confused with the concrete good itself. A typewriter is a tangible, material capital good; its weight is measured by pounds; its bulk by cubic inches; its value by dollars. In this book the word "capital" is frequently used as a short expression for either of the phrases "capital goods" and "capital value," but it will always be clear from the context which is meant.

Social and Individual Capital. — The individual may include items in an enumeration of his capital which are not capital from the standpoint of society. The landlord who has dwellings to let regards them as part of his capital, but from the social standpoint they are consumption goods. We may call such goods *acquisitive capital.* Again, a street railway may consider its franchise as a part of its capital, but from the social standpoint a franchise is not capital at all, nor even a good, but is simply a right to use the streets in a certain manner. Destroy the franchise, and the items of social capital would not be directly lessened.

Figure I will make clear these various distinctions: —

Circle AB represents *goods.*

Circle AC represents *economic goods.*

Circle AE represents *producers' goods.*

Circle AF represents *land.*

Zone BC represents *free goods.*

Zone CE represents *consumers' goods.*

Zone DE represents *acquisitive capital.*

Zone EF represents *social capital.*

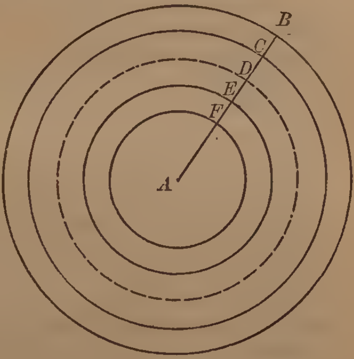

FIG. I

The National Wealth and the National Dividend. — Attempts have been made to ascertain the total wealth of a nation. The latest estimate made for the United States by the census authorities is given on the following page.

Such a table is useful, even though it may contain some rather arbitrary estimates, as showing the relative importance of different classes of our material equipment. Notice the small total value of the metals used as money and the relatively large value embodied in real property. It is rather surprising that manufacturing machinery, tools, and implements are worth less than

ESTIMATES OF WEALTH FOR 1900 AND 1904

FORMS OF WEALTH	1904	1900
Real property and improvements — taxed	$55,510,228,057	$46,324,839,234
Real property and improvements — exempt	6,831,244,570	6,212,788,930
Live stock	4,073,791,736	3,306,473,278
Farm implements and machinery	844,989,863	749,775,970
Manufacturing machinery, tools, and implements	3,297,754,180	2,541,046,639
Gold and silver coin and bullion	1,998,603,303	1,677,379,825
Railroads and their equipment	11,244,752,000	9,035,732,000
Street Railways, etc.:		
Street railways	2,219,966,000	1,576,197,160
Telegraph systems	227,400,000	211,650,000
Telephone systems	585,840,000	400,324,000
Pullman and private cars	123,000,000	98,836,600
Shipping and canals	846,489,804	537,849,478
Privately owned waterworks	275,000,000	267,752,468
Privately owned central electric light and power stations	562,851,105	402,618,653
All other:		
Agricultural products	1,899,379,652	1,455,069,323
Manufactured products	7,409,291,668	6,087,151,108
Imported merchandise	495,543,685	424,970,592
Mining products	408,066,787	326,851,517
Clothing and personal adornments	2,500,000,000	2,000,000,000
Furniture, carriages, and kindred property	5,750,000,000	4,880,000,000
Total	$107,104,192,410	$88,517,306,775

our live stock. But great care should be taken in comparing the total wealth as estimated in this and in preceding census valuations and in drawing conclusions as to the significance of a growth in national wealth measured in dollars.

In addition to the difficulty of getting accurate information on these various items, there are several things to be kept in mind in making use of such an estimate. First, the returns are made in money, so that fluctuations in the value of money will show a change in the total valuation even if there is no change in the relation between the wants of a community and its goods other than money. Again, free goods are not included in such an estimate. Also, a good deal of public property does not have a money estimate put upon it. Who would attempt to say what our rivers and harbors are worth, and yet why should not these be included in the estimate if our canals are?

It seems that much that is included in the estimate is wealth from the individual standpoint only, but not from the social, as in the case of the valuation of a business whose value consists largely of patents or monopolistic privileges. In the table above, for example, the value of railways in 1904 was obtained by capitalizing their net earnings. Is this sum properly included in an estimate of the total amount of wealth in the United States? The inclusion is proper if we are confining ourselves to a statement of the sum of the values of property rights, but it is misleading if we wish to show the relative importance of railways and of property in a competitive industry, or if we are discussing railways in relation to the public welfare. A similar line of thought is suggested with reference to land values. Ten years ago we had about the same area and the same quality of land as we now have, so that its high value to-day cannot mean that we are better equipped with natural resources.

We must be on our guard against attaching improper significance to estimates of total wealth. Changes in total value are not an accurate index of changes in well-being. It is possible that an increase in concrete material goods will actually decrease the total quantity of wealth measured in dollars. A hundred bushels of wheat at $1 per bushel have a higher selling value than two hundred bushels at 40 cents per bushel. If by some magical process all goods could be made free as air, there would be no value whatever. An estimate of the value of our stock of wealth also necessarily omits to take account of personal services. It is obvious also that *per capita* wealth has a more direct relation to well-being than total wealth. Individual wealth and value connote scarcity; well-being implies abundance. Nevertheless.

under present conditions, it is probable that an increase in *per capita* individual wealth, when not due to fluctuations in the value of money, also indicates an increase in well-being. There is no likelihood of our being able to increase the quantity of economic goods to such an extent as to render them free and hence valueless; and, on the other hand, as will be more fully explained later, new wants are constantly developing, and value is at bottom the power to minister to unsatisfied wants.

The *national income* is a concept which takes account of the services rendered directly by persons as well as of the material things that are used. The national income, objectively considered, is a gigantic stream of food, clothes, comforts, personal services, etc., which is used up in the direct satisfaction of wants in a specified period, such as a year, by the millions of individual acts of consumption. Some writers would include also the additions to our industrial equipment, such as new machines; but they may also be regarded as promises of an enlarged future income of society, not a part of its present real income. These two views correspond to the two definitions of income on page 98.

It is difficult to make an accurate estimate of the national income in terms of its money value, and not much confidence can be placed in the estimates that have been made. A reliable calculation of this kind would, however, be useful as an index of the maximum gain that might be derived by the mass of the people from agitation for a more nearly equal distribution of wealth. It would be interesting to know what the scale of living would be if the national income were equally distributed. At present we do not know whether a family of five persons would have $800 or $1600 to spend.

The national income may be looked upon as the national dividend, the sum total of good things to be divided among the various families or individuals. The forces determining the size of this dividend, the manner of its division, and the saneness of its use are the main topics for discussion in political economy, and hence it will be our purpose in subsequent chapters to describe the general tendencies in the consumption, the production, and the distribution of wealth and income.

QUESTIONS AND EXERCISES

1. Does the following statement agree with the definitions in the text? "The true basis for an estimate of a nation's wealth is to be found in the enjoyments of its members." Hadley, *Economics*, p. 4.

2. Are the following wealth: air? whisky? a copyright? Lake Michigan? skill as a carpenter? good health?

3. Discuss the following: "Among the motives which lead men to accumulate wealth, the primacy, both in scope and intensity, therefore, continues to belong to this motive of pecuniary emulation." Veblen, *Theory of the Leisure Class*, p. 34.

4. State the significance of the following: "A horse is not wealth to us if we cannot ride, nor a picture if we cannot see, nor can any noble thing be wealth except to a noble person." Ruskin, *Munera Pulveris*, p. 10.

5. Discuss the following statement: "In 1770 Arthur Young reckoned the income of England to be £120,000,000; in 1901 the income may be roughly set down at £1,600,000,000. Making correct allowances for population and for prices, this growth of income would signify a large increase of commodities per head; but would it tell us that we are working and living somewhat better than our ancestors?" Hobson, *The Social Problem*, p. 43.

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PART II

CONSUMPTION

CHAPTER VIII

CONSUMPTION

Consumption Defined. — Consumption in economics means the use of goods in the satisfaction of human wants, which is the purpose of a large part of our economic activity, but it is not the sole purpose, since activity is to a certain extent an end in itself. Nevertheless, in economic society as it is organized to-day we are perhaps justified in looking upon consumption as the motive force behind production. Wants are so far from satisfied at present that men look for work, not because they seek to be rid of surplus energy, but because they crave the goods which their wages will buy. The power of unrestricted consumption seems to be the prevailing ideal. Industry, furthermore, is organized and conducted primarily to satisfy the consumer, not the worker. This fact is the basis of the Consumers' League, which aims to improve conditions of production by asking the consumer to refuse to purchase the goods of unfair employers.

A study of the consumption of wealth falls only partly within the domain of economics, for the use of wealth is a large part of the problem of life. Passing judgment on the standards according to which the rationality of certain wants is to be measured does not directly concern the economist.

Productive and Final Consumption. — When used without qualification, the word "consumption" in economics is commonly taken to refer to the use of goods to satisfy wants directly. But some goods, such as machines and raw materials, are used up in the production of other goods. This we may call *productive consumption*, while that consumption which attains the ultimate goal of economic activity directly in the satisfaction of wants is *final consumption.* It is now less necessary than it was in the days of Carlyle and Ruskin to insist that food consumed by laborers is not productive consumption. They consume, not merely for the sake of production, but also for the sake of satisfaction. Man is our final term.

Human Wants. — In the study of human wants as a starting point in economic theory, two facts stand out prominently: the expansion in the number and variety of the wants, and the satiability of any particular one of them. As man has progressed from savagery to civilization, the variety of things he desires and even considers necessary to his existence has expanded enormously. His interests become more varied, his capacity to enjoy becomes larger, and he lives a fuller and more complex existence. There are indeed those who would have us "return to nature" and live a simple life, but taking the world as it is, we may assume that there is no limit to the capacity of the community to use more goods.

But when we turn to the consideration of some particular want by itself, the matter is wholly different. Our nerves grow weary of a repeated stimulus, and any attempt to continue indefinitely the enjoyment of some sensation results in satiation. A phonograph record grows stale after a number of repetitions. An apple does not always have the same degree of utility for any one of us, varying from the highest degree, if we are on the point of starvation, to disgust, if a considerable number have just been consumed.

Law of Diminishing Utility. — This fact is of fundamental importance in the study of economics and has been dignified by the term "the law of diminishing utility." In formal words: *The intensity of our desire for additional units of any commodity decreases as we consume successive portions.* It should be observed that an interval of time between the successive acts of consumption may permit our nerves to recuperate so that no diminution in the degree of utility is apparent. Again, the increase in a person's stock of an article held for the purpose of exchange, such as money, can cause a decrease in the utility of an additional unit only to the extent that all of his wants are being satisfied, since such an exchangeable commodity in reality stands for all commodities available to him. Again, consumption of certain articles may result in the development of new related wants. The amateur photographer, for example, finds that the crude pictures which delighted him at first give him less and less pleasure, but his interest in photography may continue to increase because he sees an endless variety of results to be achieved.

Different Uses for the Same Commodity. — In the preceding paragraph mention was made of the different degrees of intensity of a particular want. The utility of a commodity may also vary because of its capacity to satisfy different wants of varying importance. Thus water, first of all, satisfies thirst. The importance of this utility is altogether incalculable, for without it we should die. Then it serves for bathing, a use which certainly seems essential, but one which is far less urgent than the foregoing. If we had to do without one or the other, there is no doubt which we should prefer. Then it serves for washing dishes, clothes, and a multitude of such things, then for sprinkling lawns and streets, then for fountains, artificial ponds, etc. All these uses and many more are economic, because men will and do pay for water to satisfy these wants.

Marginal Utility. — It must be evident, therefore, that to say that a certain thing is a utility is very indefinite. That merely tells us that it is capable of satisfying some want, perhaps important, perhaps unimportant. We become definite only when we have specified the degree of utility possessed by the commodity. This is commonly called its final or marginal utility, because when we think of a commodity as consumed in successive portions, the present is the last or marginal unit consumed. Marginal utility means simply the importance which is attached to an additional unit of the commodity at the present moment. This individual valuation of a unit of the commodity may be spoken of as its *subjective value*. This is to be distinguished from its market value, or what can be obtained in exchange for the commodity, which is a resultant of many individual valuations. Market value will be discussed in subsequent chapters.

A clearer notion of subjective value (or marginal utility) may be given with the help of Figure 1, following. We return to our illustration of water, which we remember had numerous uses of various degrees of importance. We have marked off different portions of the base line representing quantities of water available for man's use. The first quantity, *ab*, is just enough for drinking purposes. Suppose this is all the water to be had. There will be no question of sprinkling lawns or even of bathing under such circumstances. What will be the utility of water? Evidently the extent of the service which it renders us, and as this is the preservation of our life we cannot estimate it. We will indicate it by the area above the line *ab* which runs upward indefinitely as the curved line fails to close in. What will be the importance of another portion of water at this point of supply? As this additional portion which we desire is not needed for drinking but for a less important purpose, the subjective value of the water will now depend upon this less-important want. Now suppose we have three portions of water, represented by the lines *ab*, *bc*, and *cd*. We now have enough for all our wants, down to sprinkling the lawn and the street. We are willing to pay something for more water for this purpose, but how much? As much as when we had only water enough to drink? By no means. The next want on our list is comparatively unimportant, and of course we value an increased supply accordingly. With two or three more portions of water all our wants are satisfied, and water will have for us no value whatever. Its marginal utility will have become zero. As the amount of water is increased, the subjective value falls according to the curved line *hi*, till finally it touches the base line, where the utility of the water ceases and it has no value at all.

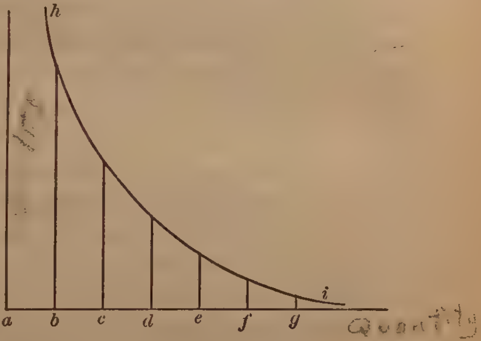

Fig. 1

It should be carefully noted that marginal utility tells us nothing about the total subjective value of the whole stock of the commodity. It refers solely to the present value of an additional unit, or the sacrifice that would be occasioned by the loss of a unit. We cannot get the total subjective value by multiplying the marginal utility by the number of units, even though they be all alike. The very term "marginal" tells us that the conception implies successive additions, and the present value of an additional unit tells us nothing definite about the marginal utility at a previous period. If we wish to ascertain the total subjective value of a stock of a commodity, we have simply to treat it as one large unit, and ask what would be lost if it were taken away. By this test all air would be found to have an immeasurable utility, at the same time that the marginal utility, that is, the subjective value of an additional quart, would be nothing. Thus it will be seen that the cause of subjective value is utility under a condition of scarcity; that is, such a limitation of the supply that all wants cannot readily be satisfied.

The Economic Order of Consumption. — What has been said regarding the way in which our individual estimates of the importance of a commodity are determined will help to explain how we make our choices in attempting to obtain the largest amount of satisfaction with the income at our disposal. Evidently we must spend each succeeding dollar for purchasing that commodity of

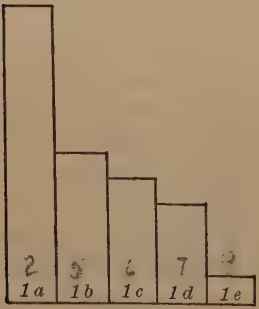

FIG. 2

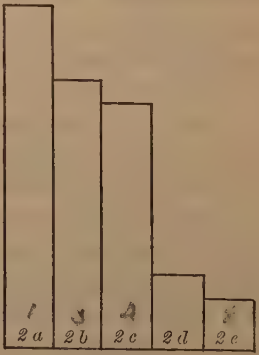

FIG. 3

which a dollar's worth will give the greatest satisfaction. Let Figures 2 and 3 show the declining importance of two commodities which an individual is consuming, and suppose that each unit of each commodity costs one dollar. If the individual has ten dollars to spend upon these two commodities, his order of consumption will be as follows: he would begin with *2a*, but another unit of commodity 2 would give him less satisfaction than a unit of commodity 1. Hence, his consumption will continue as follows: —

1a, 2b, 2c, 1b, 1c, 1d, 2d, 2e, 1e.

In this illustration it was assumed that a unit of each commodity had the same cost. In this case, the unit consumed is always the one that has the largest marginal utility. But where the cost of the units is different, cost must be considered also, and we commonly do so by asking ourselves whether the thing we are buying is worth as much as other things which could be obtained with the same expenditure. Thus we are constantly abstaining from the further consumption of one thing, not because our wants for it are fully satisfied, but because something else of equal cost appears at that moment to be more important.

Future Wants. — Not all of the goods for which we strive are wanted for present consumption. We recognize that we shall have needs next month or next year, and we attempt to make some preparation for them. These future wants, it is true, usually appeal to us less vividly than if they were present, but we attach a definite importance to them and grade them, and they enter into

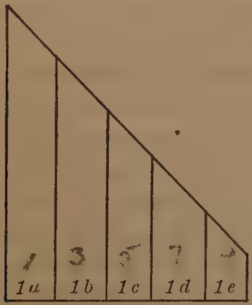

FIG. 4

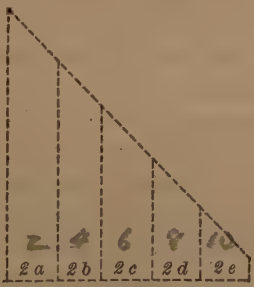

FIG. 5

our calculations when we spend money, modifying the order of our consumption. This will be seen from Figures 4 and 5. Let us suppose that in Figure 4, *a*, *b*, *c*, *d*, *e* represent the diminishing importance of successive units of a commodity for present consumption, and that Figure 5 shows the importance of similar quantities of the same commodity for future consumption. Then 1*a* would be consumed first, *i.e.* in the present. But a second unit now would be less important in this individual's estimation than the saving of a unit for future use. The second unit, therefore, that is consumed would be 2*a*, and then the order would be as follows: 1*b*, 2*b*, 1*c*, etc. Thus this individual has saved two out of five units, *i.e.* 2*a* and 2*b*, with the same sort of mental calculation as he would use in deciding to spend a nickel for a peach rather than for a pear. But if some one should ask him to spend his fifth dollar for 2*c* instead of for 1*c*, he would require some extra inducement to repay him for the loss in enjoyment. It thus appears that a certain amount of saving is done without irksomeness, which emerges only when the saving is carried beyond a certain point.

Alleged Present Consumption of Future Products. — We often hear of consumption in advance of production. It is said people live on the future. It is frequently argued that during the Civil War we were consuming faster than we were producing. It is alleged that the federal bonds represented the consumption of future earnings. But it must be apparent that it is impossible to consume faster than we produce unless we consume past savings by not replacing worn-out equipment. We cannot eat to-day the wheat or potatoes of to-morrow, nor can we wear coats before they are made. What is alleged can only be true of the individual consumer within the nation, or in case of the nation as a whole when the capital or other wealth of the country is diminishing, whereas during our Civil War it increased. What really happened was this: we as a nation became indebted to some extent to foreigners, and within the nation some of us gained while the rest were losing. Bonds do not represent a present consumption of future wealth, but a special use of productive power for which a government agrees to remunerate its owners in the future. If war can be carried on with the aid of bonds, it can, — leaving out of consideration what foreigners send us, — with a sufficiently perfect taxing machinery, conceivably always and practically sometimes, be carried on without bonds. It is only a question of how to get hold of the means of producing powder and bullets. War was formerly carried on without bonds; they are a comparatively recent contrivance. Consumption can never anticipate future production for the nation as a whole taken by itself; it can only anticipate future ownership.

Consumption and Saving. — It is difficult to say in practice at what point consumption should stop and saving begin, but the principle itself is clear. So much, and only so much, should be saved as will maintain a maximum final consumption over long periods of time. It is conceivable that the present generation might deny itself everything except the barest necessities and labor to increase the productive equipment to be used in the future; but the next generation could not pursue the same policy, for some one must consume the products of the factories built to-day, otherwise the building of them was wasted effort.

To provide for old age or for possible accident may be a sufficient motive for saving in some cases, but saving is stimulated when the goods saved will bring an increase. It is, therefore, necessary to an extensive saving that the conditions of profitable investment should be provided; and if wealth is to be widely diffused, opportunities for investment should be readily available. It is a perceived opportunity to make an investment with probability of increase which stimulates saving above everything else. Another important condition is security. If the investments of a country fluctuate between loss of principal and unreasonable profit, the condition is one to encourage speculation rather than saving. Among the institutions which encourage saving are private property, corporations, coöperative enterprises, savings banks, and insurance.

Luxury. — Luxury is the name of a vague something which society has always viewed with a sense of mingled tolerance and condemnation. In the first place, it is clear that people ordinarily consider as luxuries many things in themselves innocent and de-

sirable, as silk dresses, jewels, pictures, etc. No one but an ascetic will condemn as wrong in themselves things that appeal to taste and finer appreciations, and yet we feel that the use of such things is often unjustifiable. Second, the popular idea of luxury recog-
2 nizes a difference in persons. We cannot help condemning in one person what we approve in another. Third, we judge luxury differently at different times. There is a continual transfer of articles from the list of luxuries into that of comforts and necessities. This transfer is brought about by the consensus of social judgment, and is increasingly acquiesced in by all. So we see that the term "luxury" does not apply to goods of a certain character, but to certain goods in their relation to time and person. For the purpose of discussion, we shall define luxury simply as excessive consumption. But what determines whether consumption is excessive or not?

The answer to this question depends, first, upon our idea of
1 right living, and second, upon our idea of a just distribution of wealth. The former question we shall not discuss. It is that of the simple life *versus* the complex and varied life, and may be left to the sociologists, philosophers, and moralists. But what is a just distribution of wealth? In the world's speculation upon this subject, three ideas stand out prominently: (1) equality, (2) product, (3) needs. Let us examine these three bases of distribution.

The ability of men to use wealth sanely is enormously unequal, and there is no probability that this inequality will soon be removed. To distribute wealth equally, therefore, would be to use goods where they satisfied trifling wants or none at all. But in addition to its wastefulness, an equal distribution is further objectionable because of the discouragement it might give to the energetic members of the community. Would a man continue to work hard if his lazy neighbor received as much as he? There is only one sense in which we must regard men as equal, and that is that the happiness of one is as important as the happiness of another.

That wealth should be distributed according to what men produce is perhaps the most widely held idea at the present time, sometimes on the ground that it is theirs by natural right, which is fallacious, and sometimes on the ground that such a method of distribution is a cure for laziness. There is, however, great difficulty in applying this test accurately under the complex conditions of modern industry. Who shall say what the president of a great life insurance society is producing? How many dollars' worth has a physician produced who has saved a man's life? However satisfactory the test of productivity may be in the case of a man who produces a pair of shoes with his own implements and labor, it fails at many points under modern industrial conditions, and its failure has become increasingly apparent with the growth of large-scale production and monopoly.

Those who are impressed with the difficulty of saying what a man has produced, suggest that we ascertain what he needs. This, it is true, is not capable of exact determination; but any wide departures from justice might be agreed upon by judicial inquiry. Needs are the basis of the distribution within the family. The solidarity of the family demands it, and this is but the epitome and type of the solidarity of society. It is unquestionably in the interest of society that those with the highest capacities should be allowed to attain the fullest development of all their powers, provided these powers are used in the service of humanity. What is necessary to make a man a good citizen? That, according to this third view, is the ultimate test of a just distribution.

It is not necessary for us to select as a practical programme any one of these tests and wholly reject the others. The first, equality, reminds us that the lowliest human being is to be looked upon as an end, not as a means, to the happiness of others; the second is safe and convenient so far as it can be definitely applied; but the final test, so long as we are social beings, will always be that of needs, understanding by "needs," not what the individual asks for, but what is required for a full development of his powers.

While, then, justifiable consumption will, according to these principles, be exceedingly variable, can any one for a moment claim that such principles now govern consumption? Immense sums are squandered on passing caprices whose satisfaction cannot by any standard be considered necessary. On the other hand, multitudes of fine natures with keen appreciations and large capacities for development and present enjoyment are left without the means for either. So long as these things exist, so long as a vast amount of the world's wealth is destroyed by vulgar and incompetent consumption which might impart satisfaction of a high order if consumed otherwise, and by others, the moral sense of the world will condemn luxury as a social wrong.

And what is the excuse for this abuse? Usually the simple fact of ownership. "It is ours," they say. But for what? Simply because the interests of production require capital to be massed under specialized control. There is no more reason why a millionaire should consume all the income he controls than there is why a philosopher or an artist should withhold from society the satisfactions afforded by his genius. A successful manufacturer once expressed the opinion that a man has the right to put down silk velvet on a muddy crossing to walk on if he is rich enough to afford it. When a man tramples in the mire the fruit of human industry, he tramples with it human rights and humanity, and he should expect humanity to avenge the affront. The right of private property, like other social institutions, is ever on trial. The obsolete objection is sometimes urged that luxury gives employment to labor. Does not philanthropic and productive expenditure do the same? But that is not the question. What comes of the employment? The payment of wages only helps men to get more of existing goods from other persons. That may be good for those workmen individually, but the only way to help society as a whole is to give men useful employment, to aid and encourage them to produce needed goods. Every employment of labor which encourages production of luxuries is a misdirection of social energy, an encouragement to society to spend its money for that which is not bread and its labor for that which satisfieth not.

Harmful Consumption. — We have been careful to avoid the impression that luxury consists in the use of pernicious goods. It is a common query, "Why should I not have this if it does me no harm?" This we have tried to answer in the preceding paragraphs. A luxury may be a positive good in itself, a satisfaction which society may well hope to make general, but it is a good which society cannot yet afford because other and greater wants are yet unsatisfied. But there is another kind of consumption which is objectionable in an entirely different way, not because it is excessive or premature, but because it is harmful in itself. Such are frequently drugs and alcoholic beverages. As we have said before, these wants are as economic as any other, and we have no intention of assuming the function of the physiologist or the moralist in enumerating the evils which come from the consumption of certain goods. But in one respect we have a distinct part in this discussion. All production is for the sake of man, and consumption is its final term. But in turn man is the principal factor in production, and as the consumption of certain goods affects him, the result is necessarily transmitted to the productive process. Now the consumption of certain goods clearly unfits men for efficient production, lessening bodily vigor, blunting the perception, and these goods the economist regards as harmful in the sense of being destructive of human energy.

Statistics of Consumption.—Instructive investigations have been made as to the relative importance of the leading items in the family budget. The late Ernst Engel, the former distinguished head of the Prussian Statistical Bureau, advanced the theory that it might be possible by a careful study of a sufficient number of family budgets for a period of years to indicate the broad changes in consumption, and thus by a sort of social signal service to predict the coming of industrial storms. Nothing has been so far accomplished along this line, but Engel's tables are interesting. From Table I (page 118) he deduces the following four propositions: —

First. — That the greater the income, the smaller the relative percentage of outlay for subsistence.

Second. — That the percentage of outlay for clothing is approximately the same, whatever the income.

Third. — That the percentage of outlay for lodging or rent, and for fuel and light, is invariably the same, whatever the income.

Fourth. — That as the income increases in amount the percentage of outlay for sundries becomes greater.

TABLE I

ENGEL'S LAW — SAXONY

ITEMS OF EXPENDITURE	PER CENT OF THE EXPENDITURE OF THE FAMILY OF					
	A Workingman with an Income of from $225 to $300 a year		A Man of the Middle Class with an Income of from $450 to $600 a year		A Man in Easy Circumstances with an Income of from $750 to $1000 a year	
1. Subsistence	62.0	95.0	55.0	90.0	50.0	85.0
2. Clothing	16.0		18.0		18.0	
3. Lodging	12.0		12.0		12.0	
4. Heat and light	5.0		5.0		5.0	
5. Education, public worship, etc.	2.0	5.0	3.5	10.0	5.5	15.0
6. Legal protection	1.0		2.0		3.0	
7. Care of health	1.0		2.0		3.0	
8. Comfort, mental and bodily recreation	1.0		2.5		3.5	
Total	100.0		100.0		100.0	

Subsequent investigations in the United States have confirmed in a general way the conclusions of Engel, but the correspondence is not exact, as will be seen from Table II (page 119), from the reports of the United States Bureau of Labor, summarizing the expenditure of over two thousand families in 1891 and over eleven thousand in 1903.

A recent careful study of two hundred families in New York gives the following division of expenditures: —

BRANCH OF EXPENDITURE	AMOUNT SPENT	PER CENT OF TOTAL
Food	$363.42	43.4
Rent	162.26	19.4
Clothing	88.45	10.6
Light and Fuel	42.46	5.1
Insurance	32.35	3.9
Sundries	147.31	17.6
Total	836.25	100.0

The author of this study comes to the conclusion that a "fair living wage for a workingman's family of average size in New York City should be *at least* $728 a year, or a steady income of $14.

TABLE II

Expenditures of American Families Investigated by the United States Bureau of Labor

(From the Seventh [1891] and Eighteenth Annual Reports [1903])

	Per Cent of Total Expenditure									
	Food		Clothing		Rent		Fuel and Light		Miscellaneous	
	1891	1903	1891	1903	1891	1903	1891	1903	1891	1903
Under $200	49.6	50.9	12.8	8.7	15.5	16.9	8.1	8.0	14.0	15.6
$200 or under $300	44.3	47.3	14.3	8.7	14.7	18.0	7.6	7.2	19.2	18.8
$300 or under $400	45.6	48.1	14.1	10.0	15.0	18.7	7.0	7.1	18.3	16.1
$400 or under $500	45.1	46.9	14.4	11.4	15.3	18.6	6.6	6.7	18.6	16.5
$500 or under $600	43.8	46.2	15.3	12.0	15.2	18.4	6.6	6.2	19.1	17.2
$600 or under $700	41.2	43.5	15.9	12.9	15.5	18.5	5.9	5.8	21.6	19.4
$700 or under $800	38.9	41.4	16.3	13.5	15.6	18.1	5.3	5.3	23.9	21.6
$800 or under $900	38.1	41.4	15.1	13.6	16.1	17.1	5.3	5.0	25.5	23.0
$900 or under $1000	34.3	39.9	16.8	14.4	14.9	17.6	4.7	5.0	29.1	23.2
$1000 or under $1100	34.7	38.8	17.5	15.1	15.1	17.5	4.5	4.9	28.1	23.7
$1100 or under $1200	30.7	37.7	16.5	14.9	12.2	16.6	3.9	4.7	36.7	26.1
$1200 or over	28.6	36.5	15.7	15.7	12.6	17.4	3.0	5.0	40.1	25.4
All	41.1	43.1	15.3	13.0	15.1	18.1	5.9	5.7	22.7	20.1

a week. Making allowance for a larger proportion of surplus than was found in these families, which is necessary to provide adequately for the future, the income should be somewhat larger than this; that is, from $800 to $900 a year."[1]

QUESTIONS AND EXERCISES

1. If you had four sacks of corn all alike, could you tell which is the marginal one?

2. If an individual estimates his present wants as $10, $8, $6, $3, $1, and his future wants as equivalent to the present value of $9, $7, $5, $2, $0, and if he has $50 with which to satisfy these wants, how many dollars will he save?

3. Give as many expressions as possible that are equivalent to the term "subjective value."

4. Comment on the following: "Doubtless the best thing to do about them (the spendthrifts) is to do nothing — not even to worry about their waste of money. Their waste of money, in fact, is the least silly thing they do, for the money is in constant flux and serves its purpose." *World's Work*, June, 1906, p. 7597.

5. Comment on the following words of Adam Smith: "Nothing is more useful than water; but it will purchase scarce anything; scarce anything can be had in exchange for it. A diamond, on the contrary, has scarce any value in use, but a very great quantity of goods may frequently be had in exchange for it." *Wealth of Nations*, Book I, Chap. IV.

6. Point out the differences in the tables of consumption statistics quoted in the text.

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[1] More, *Wage-Earners' Budgets*, New York, 1907, pp. 208 and 269.

PART III

PRODUCTION

CHAPTER IX

PRODUCTION

Production Defined.—Man creates no new matter. Neither the farmer nor the merchant adds one atom to the existing material of the earth. Yet they are both properly called producers because they increase our supply of economic utilities. Production, then, means the creation of economic utilities by the application of man's mental and physical powers to the materials of nature. The act of production can be reduced to the following three operations: (1) changing the form of things, (2) changing their place, and (3) keeping them until such times as they are wanted; in other words, production adds to the materials of nature, *form utilities*, *time utilities*, and *place utilities*. It has seemed to some that the farmer is more truly a producer than the manufacturer, and the manufacturer than the merchant; but such is not at all the case. All of these industrial classes help at some stage in the process of getting the materials of nature ready for consumption. The miner gets iron ore from the ground, the manufacturer transforms it into stoves, the railway company transports them, and the merchant keeps them until they are wanted. One stage is as essential as another if wants for stoves are to be satisfied. It may well happen that the utilities produced by the merchant could be produced with a smaller expenditure of economic force, and that by a better organization of the factors of production saving could be effected; or it may be that at times the merchant has been able to secure a larger return for a given effort than the farmer, but this is no justification whatever for the popular impression that he is not a productive worker.

Factors of Production. — It has been customary to speak of three factors of production — nature, labor, and capital. Under nature are included all forces external to man, as the wind, the movement of water, attraction of gravitation, cohesion, etc. Frequently these things furnished by nature are called simply *land*, because, of what belongs to external nature, it is with land that we have principally to do in political economy.

Labor, as a factor of production, includes human activities of every sort, intellectual as well as physical, which have economic significance. We might better, perhaps, substitute man for labor as the second factor. Labor is supplied by human beings and is different from material goods because it is always connected with a personality. Moral and intellectual qualities increase its productiveness. Temperance, trustworthiness, skill, alertness, quick perception, a comprehensive mental grasp, — all these and other qualities belonging to the soul of man are of paramount importance. Man's mere physical strength in itself is a poor thing, being surpassed by that of the lower animals, but man is far more productive, and even as a slave sold for more than the lower animals.

Man can get but little from nature with his unaided hands. The instruments which assist him, as we have seen, are called *capital;* in other words, capital is every product which is used or held for the purpose of producing or acquiring wealth. By this definition, land is evidently excluded from the category. The nation's capital, then, consists of tools, machinery, business buildings, transportation systems, raw material, etc. We may here again caution the reader against confusing these concrete goods with their value. Capital cannot be looked upon as an independent factor of production, since it is derived from the labor of man applied to nature. This fact has led some persons to say that capital is simply stored-up labor, but this overlooks the important element of time required for production with the aid of capital. When we say that to print a book according to present-day methods requires the co-operation of labor and capital, we do not deny that the type-setting machines and printing presses which are used are themselves the product of other kinds of labor. To substitute capital for labor may seem to be simply substituting one kind of labor for another But a long time elapses between the digging of the iron ore and the actual using of the machines in printing. Capitalistic production, as distinct from simple hand labor, is merely a different method — a roundabout method — of applying human labor to the materials of nature. It is this time element which gives rise to the problem of interest to be discussed in a later chapter.

> "Capital is an intermediate product of nature and labour, nothing more. Its own origin, its existence, its subsequent action, are nothing but stages in the continuous working of the true elements, nature and labour. They, and they alone, do everything from beginning to end in bringing consumption goods into existence. The only distinction is that sometimes they do it all at once, sometimes by several stages. In the latter case the completion of each stage is marked outwardly by the appearance of a fore-product or intermediate product, and capital has emerged. But, let me ask, is a thing any the less the work of its author that it is not produced all at once, but in installments? If to-day, by allying my labour with natural powers, I make bricks out of clay, and to-morrow, by allying my labour with natural gifts, I obtain lime, and the day after make mortar and so construct a wall, can it be said of any part of the wall that I and the natural powers have *not* made it? Again, before a lengthy piece of work, such as the building of a house, is quite finished, it must naturally be at one time a fourth finished, then a half finished, then three quarters finished. What, now, would be said if one were to describe these inevitable stages of the work as independent requisites of house-building, and maintain that, for the building of a house, we require, besides building materials and labour, a quarter-finished house, a half-finished house, a three-quarters finished house? In form perhaps it is less striking, but in effect it is not a whit more correct, to elevate those intermediate steps in the progress of the work, which outwardly take the shape of capital, into an independent agent of production by the side of nature and labour." [1]

It has been customary to distinguish *fixed capital*, which lasts for a succession of operations, and only a part of the value of which passes over into the product with each use, from *circulating capital*, which is used up in one act of production. Coal used in a locomotive is an example of circulating capital; the car in which the coal is hauled is fixed capital. The difference is one of degree only.

Saving and Capital Formation. — From the individual standpoint, saving means the postponement of consumption. To lend to another, and thus secure a claim on his services for the future, is an act of individual saving, but this does not necessarily result in saving from the social standpoint. An act can be termed social saving only when the total social income in the future will be increased thereby. It is conceivable that this might take the form of merely hoarding up finished consumption goods in anticipation of a famine, but that is not the kind of saving that is typical of modern industrial nations. It is true that we frequently produce durable consumption goods which will be used for a long time in the future. The construction of a public library building in part involves social saving. But true social saving may also consist in bettering the industrial equipment of society. To provide more and better machines it is necessary to use some of the labor which might be used to increase our present income. If all of the labor now used in the construction of new milling machinery, ovens, etc., were employed in turning into bread all of the flour we now have on hand, we could doubtless greatly increase temporarily our present income in bread, but it would be at the expense of the future income. Thus the saving which results in the formation of social capital requires two things: (1) abstaining from the largest possible income to-day, and (2) using part of our labor in bettering the industrial equipment. Individual saving, however, itself commonly results in social saving also, as will be explained in a later chapter.

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[1] Böhm-Bawerk, *Positive Theory of Capital* (trans. by W. Smart), p. 96.

Production and Sacrifice. — Over against the enjoyment resulting from wealth consumption lies the discomfort of wealth production. Enjoyment, we have seen, grows less and less as the consumption of a particular good is continued, but the irksomeness of producing it, on the contrary, grows greater and greater the longer labor is continued. Let us take the case of Robinson Crusoe picking berries. We may represent the diminishing utility of the berries to him by the line *ab* (Fig. 1), and the increasing irksomeness of picking them by the line *cd*. He would

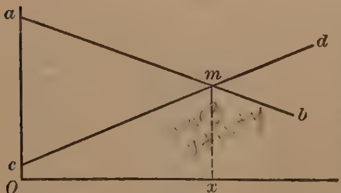

FIG. 1

not pick more than Ox, because the xth berry costs him just as much pain as it yields him pleasure, and any further continuance of gathering fruit would result in an excess of pain. The degree of utility represented by mx, then, represents at the moment that the xth berry is picked and eaten, both the marginal utility and the marginal disutility, or marginal pain or sacrifice.

Each of us is continually making such comparisons — balancing the pleasure of further consumption against the pain of further production. Many persons who are working eight or ten hours a day could increase their income somewhat by working twelve hours, but the additional discomfort is greater in their estimation than the additional fruits of their labor would be worth. To be sure, much of our economic action goes on unconsciously. We accept a position, considering its advantages and its disadvantages in a general way as compared with the income it yields, but once we enter upon the work, we accept the daily grind as inevitable, and, in spending our income, think not of the pain it causes us, but simply of how we can get the maximum satisfaction from it.

In discussing future wants we saw that postponing the consumption of goods from the present to the future began to be irksome only after a certain amount of goods had been saved. Under present methods of production, it has just been explained, a large amount of this postponement of consumption is required. Machines must be made, and the result of this labor cannot be enjoyed until these machines have been used up in making finished products. This means that some one must wait for the result, and in many cases this is irksome. Thus production may require, in addition to the pain of labor, the *sacrifice of irksome waiting or abstinence.* This is a point which will be discussed further in the chapter on interest.

Cost of Production and Expense of Production. — The preceding paragraphs explain the most fundamental sense in which the term "cost of production" is used, *i.e.* (1) the subjective cost of painful labor or irksome waiting. But (2) the phrase is commonly used to refer to the expense of production, that is, the number of dollars' worth of labor and capital goods spent in getting an article on the market. (3) A third meaning is also found, which may be termed opportunity cost. Let us say that a person is confronted by the alternative of engaging in either of two occupations. He may be either a lawyer or a merchant, but he has not the time to be both. If he chooses to be a lawyer, he sacrifices his opportunity of being a merchant. In some cases this form of sacrifice is not easy to distinguish from the first. If a man is hesitating whether to accept a position requiring nine hours' work per day or one requiring ten hours, shall we think of him as considering the irksomeness of the tenth hour, or the leisure which he would be sacrificing? But where the opportunity that is sacrificed is an occupation or business, this "opportunity-cost" is simply one way of looking at the fact that we aim to get the greatest possible return for our labor.

Organization of the Productive Factors. — The three factors, land, labor, and capital, must be brought together for purposes of production. In the case of many farmers and small-scale manufacturers, all three are furnished by the same person, but under our system of private property, a marked differentiation of ownership takes place as industrial development becomes more complex. In a large-scale establishment it is the exceptional case where the majority of the laborers have any share in the ownership of the capital, but generally the owners of the capital are also the owners of the land. In American agriculture, ownership of the land and the capital by the same person is also widespread, but in England at the present time it is the rule that the landowner and farmer are different persons. On the other hand, factories are frequently built upon leased ground, and much land is farmed in America by tenants who furnish their own capital. Separation in the ownership of the productive factors and accurate accounting make necessary a distinct valuation of the services of each one of the factors.

The Entrepreneur, or Undertaker. — The one who manages a business for himself was formerly called an undertaker, or adventurer, but the first word has been appropriated by one small class of business men, and the latter has acquired a new meaning, carrying with it the implication of rashness and even dishonesty. We have consequently been obliged to resort to the French language for a word to designate the person who organizes and directs the productive factors, and we call such a one an entrepreneur; but recently the term "undertaker" has been more frequently employed with this broad general meaning.

The function of the entrepreneur has become such an important one in modern society that it is often convenient to regard him as a fourth factor in production, distinct from other classes of laborers. He has been well called a captain of industry, for he commands the industrial forces, and upon him more than any one else rests the responsibility of success or failure. A business which has achieved magnificent success often becomes bankrupt when, owing to death or other causes, an unfortunate change in the entrepreneur is made. The prosperity of an entire town has sometimes been observed to depend upon half a dozen shrewd captains of industry.

Division of Labor. — A characteristic feature of the organization of the factors is what is commonly called a division of labor, but this term suggests a number of related ideas which must be distinguished. (1) We may mention first a separation of occupations, each one being independent of the other, as is shown, for example, in the splitting up of medical work into various specialties, and again, entirely new occupations are continually appearing. (2) We also find production divided into stages, each one giving rise to a commercial product, but not to a finished consumption good. This becomes clear if we think of the history of almost any article of daily use: the making of bread presupposes the flour and wheat stages. (3) We have in the third place what is most commonly referred to by the term "division of labor," where the productive process is divided into minute parts, and one part given to each laborer. The organization of a cotton mill affords an excellent illustration: —

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> In cotton mills, as in all other textile mills, there are men of skill and experience who superintend or oversee the work in various buildings and in the rooms and yards. These supervisory employees have assistants, and the division of superintendence is carried down to the sections of rooms, so that all sections have their supervisors, known variously as section bosses, section hands, section girls, and third hands. The following list of occupa-

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tions will indicate the extent to which division of labor is carried in this industry: alley boys (or girls); bundle boys; filling and roving carriers; belt makers, blacksmiths, carpenters, machinists, masons, painters, steam fitters, and other mechanics, including sometimes electricians and battery-men; roll coverers; helpers; laborers (unskilled); bale openers; picker hands or cotton shakers; lap tenders; card brushers; first and second breaker hands; finisher pickers; card boys; card hands; waste hands; wastemen; card clothiers; card strippers; card grinders; combers; lap-head hands; doublers; drawing-frame tenders; railway-head tenders; slubbers; speeders, fly-frame tenders; jack tenders; rovers; spinners; bobbin boys; yarn pourers; piecer and doffer; back boy; band boys; doublers and twisters; winders; yarn untanglers; spool boys, white spoolers; warpers; slasher tenders; size makers; reel hands; dye-house hands (with further subdivisions); beamers and splitters; beam carriers; warp drawers; harness menders; harness brushers; handers-in; twisters-in; loom fixer; pattern makers; putters-up of samples; cloth weavers; weavers of designs; yarn carriers; smash piecers; spare weavers; inspectors; trimmers. The finishing of the cloth is a separate industry.[1]

This form of the division of labor may also exist without the use of complex machinery, as in the slaughtering and meat-packing industry.

"It would be difficult to find another industry where division of labor has been so ingeniously and microscopically worked out. The animal has been surveyed and laid off like a map; and the men have been classified in over thirty specialties and twenty rates of pay from 16 cents to 50 cents an hour. The 50-cent man is restricted to using the knife on the most delicate parts of the hide (floorman) or to using the ax in splitting the backbone (splitter); and wherever a less skilled man can be slipped in at 18 cents, 18½ cents, 20 cents, 21 cents, 22½ cents, 24 cents, 25 cents, and so on, a place is made for him and an occupation mapped out. In working on the hide alone there are nine positions at eight different rates of pay. A 20-cent man pulls off the tail, a 22½ cent man pounds off another part where the hide separates readily, and the knife of the 40-cent man cuts a different texture and has a different "feel" from that of the 50-cent man. Skill has become specialized to fit the anatomy."[2]

Advantages of Division of Labor. — The advantages of a division of labor have been enumerated as follows: (1) A gain of time. A change of operations costs time. Less time is also consumed in

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[1] From the Glossary of Occupations in the volume on *Employees and Wages*. Twelfth Census, Special Reports, 1903.

[2] Commons, *Trade Unionism and Labor Problems*, p. 224, in a chapter appearing originally in the *Quarterly Journal of Economics*, Vol. XIX, p. 1.

learning one's business, as the labor of each is more simple.
(2) Greater skill is acquired, because each person confines himself 2.
to one operation. (3) Labor is used more advantageously. 3.
Some parts of an industrial process can be performed by a weak
person, others require unusual physical strength; some require
extraordinary intelligence, some can be performed by a man of
very ordinary intellectual powers, and so on indefinitely. Each
one is so employed that his entire power is utilized, and work is
found for all, young and old, weak and strong, stupid and intel-
lectually gifted. (4) Inventions are more frequent, because the 4.
industrial processes are so divided that it is easy to see just
where an improvement is possible. Besides this, when a per-
son is exclusively engaged in one simple operation, he often sees
how the appliances he uses could be improved. Workmen have
made many important inventions. (5) Capital is better utilized. 5.
Each workman uses one set of tools, or one part of a set, and keeps
that employed all the time. When each workman does many
things, he has many tools, and some are always idle. (6) Finally, 6.
where the division of labor results in the simplification of operations, it facilitates the substitution of machinery with mechanical power in place of direct human labor. "It is the largeness of markets, the increased demand for great numbers of things of the same kind, and in some cases of things made with great accuracy, that leads to subdivision of labor; the chief effect of the improvement of machinery is to cheapen and make more accurate the work which would anyhow have been subdivided."[1]

Effects upon the Worker. — The effect of the introduction of machinery upon wages will be discussed in a later chapter, but here some attention should be given to the effect of division of labor and machinery upon the life of the worker. It is frequently said that when labor is rendered simple it loses both its attractiveness and its educational value. A man can like his work when he manufactures a whole watch, bearing the impress of care and skill, but who can like the mere routine of feeding material into some machine? A workingman becomes a mere cog in a great mechanism, driven at a certain speed, day after day, with no further interest in the result of his labor than that it is the source of his daily wage. But much may be said on the other side. To a large extent the heaviest labor is done with mechanical appliances, and those movements which are very simple and regular are precisely the ones which are likely to be taken over by machinery, leaving to human beings the work which requires intelligence and skill.

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[1] Marshall, *Principles of Economics*, 4th ed., p. 334.

> "Looked at broadly, is the average work of a laborer in a machine industry less dignified, less agreeable, less humanizing than it was before the industry reached the machine stage? From the nature of the question, it is dangerous to dogmatize, because neither the affirmative nor the negative is capable of being demonstrated. The negative view seems to rest mainly upon the assumption that it is more dignified to be occupied with a great many purely mechanical operations than with a very few. The old-fashioned shoemaker, for example, was largely occupied with purely mechanical operations, most of them of a very elementary nature, such as a machine can do quite as well as a man. Each of these operations required great concentration of attention, leaving him very little opportunity for other forms of mental activity. He was the slave of each particular task as truly as a modern machine worker can be said to be the slave of his single task. But the old-fashioned shoemaker had to turn from one kind of work to another. This increased the difficulty, and, on the whole, required of him a greater amount of concentration than is now required of the operator of a machine. The latter, who has but one routine task to learn, learns it easily, and can carry it out without very intense concentration of mind. His mind, therefore, would seem to be freer than that of the old hand worker, though there was more variety to the work of the latter. Whether this greater variety is to his advantage or disadvantage would be difficult to determine offhand. It looks as though the operator of a machine in a shoe factory, being relieved of the necessity of acquiring several forms of specialized manual dexterity, would be in a better position for free mental activity than the old-fashioned shoemaker."[1]

It seems that those who declaim against factory life do not distinguish those things which are temporary and those things which are inherent in the system. Long hours, insanitary conditions of work, and frequent industrial accidents need not be inevitable accompaniments of the use of machinery. It is the efficiency of machine methods that makes leisure possible for the workingmen, and when they learn to use that leisure sanely, their condition will be far in advance of what it could be under more primitive methods of production.

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[1] T. N. Carver, "Machinery and the Laborers," *Quarterly Journal of Economics*, February, 1908, p. 230.

The charge is also brought against machine production that it is antagonistic to the development of art. Machine production means uniform production. It is possible that a growth in the desire for what is beautiful rather than cheap will limit the use of machinery in some directions (*e.g.* we may insist upon more hand work in the making of furniture), but an extensive use of machinery will always be necessary as a servant of art, and that in two ways: (1) for an appreciation of art there must be leisure, or at least leisurely work, and without machine methods this is not possible for the masses; (2) there is much work that is preliminary to the work of the artist, and that can be done by machinery. Will a building be less artistic because much of the heavy work of dressing the stone is done by machinery?

Territorial Division of Labor. — The concentration of a certain industry in a particular region is often called the territorial division of labor, or the localization of industry. Illustrations are seen in the prominence of the boot and shoe industry in Massachusetts; the collar and cuff manufacture in Troy, New York; oyster canning in Baltimore; the manufacture of gloves in Gloversville and Johnstown, New York; of coke in the Connellsville district, Pennsylvania; of brassware in Waterbury, Connecticut; of carpets in Philadelphia; of jewelry in Providence, Rhode Island, Attleboro, and North Attleboro; slaughtering and meat packing in Chicago; the manufacture of plated and britannia ware in Meriden, Connecticut; and the manufacture of silk in Paterson, New Jersey. The following causes of localization have been mentioned: (1) proximity to raw material, (2) accessibility to markets, (3) presence of water power, (4) favorable climate, (5) availability of labor, (6) availability of capital, and (7) the momentum of an early start. The explanation of how these causes have operated in particular instances is left as an exercise for the student.[1]

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[1] Consult Hall, "The Localization of Industry," Census Bulletin, No. 244 (also found in Twelfth Census, *Manufactures*), and Ross, "The Localization of Industry," *Quarterly Journal of Economics*, Vol. X, p. 247. Also the Federal Census of Manufactures for 1905, Vol. I, Chap. XII.

Productive Organization of the American People. — According to the Census of 1900, nearly two fifths of the total population and about one half of the population ten years of age and over are engaged in gainful occupations. In the following table the extent to which persons in each age group are gainfully employed is shown for each sex: —

TABLE I

NUMBER OF MALES AND OF FEMALES OF EACH SPECIFIED AGE ENGAGED IN GAINFUL OCCUPATIONS COMPARED WITH THE TOTAL NUMBER OF THE SAME SEX AND AGE: 1900.[1]

AGE GROUPS	MALES 10 YEARS OF AGE AND OVER. PER CENT OF TOTAL IN EACH GROUP	FEMALES 10 YEARS OF AGE AND OVER. PER CENT OF TOTAL IN EACH GROUP
10 to 15 years	26.1	10.2
16 to 20 years	76.8	32.3
21 to 24 years	93.1	30.8
25 to 34 years	96.3	19.9
35 to 44 years	96.6	15.6
45 to 54 years	95.5	14.7
55 to 64 years	90.0	13.2
65 years and over	68.4	9.1
Age unknown	59.6	24.2
Aggregate	80.0	18.8

The fact that women at work in their own households are not counted as gainful workers is apparent from this table. The effect of school attendance is seen in earlier age groups. In the column for the female workers the effect of marriage is seen in the decline in the percentages after twenty years. Old age makes its influence felt in both columns.

The following table shows the distribution of the gainful workers among the five main classes of occupations. The most striking facts are the decline in the relative importance of agricultural pursuits and the increase in the relative importance of trade and transportation: —

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[1] Twelfth Census, Special Report on Occupations, 1904, p. cxviii.

TABLE II

DISTRIBUTION BY MAIN CLASSES OF PERSONS ENGAGED IN GAINFUL OCCUPATIONS[1]

	1900	1890	1880
Agricultural pursuits	35.7	39.2	44.3
Professional service	4.3	4.0	3.5
Domestic and personal service	19.2	18.1	19.6
Trade and transportation	16.4	14.3	10.8
Manufacturing and mechanical pursuits	24.4	24.4	21.8
	100.0	100.0	100.0

The broad territorial division of labor is seen when these percentages are given separately for groups of states: —

TABLE III

PER CENT OF GAINFUL WORKERS IN EACH CLASS OF OCCUPATIONS BY GROUPS OF STATES: 1900[2]

	AGRICULTURE	PROFESSIONAL SERVICE	DOMESTIC AND PERSONAL	TRADE AND TRANSPORTATION	FISHING	MINING AND QUARRYING	MANUFACTURES PROPER
North Atlantic	12.5	4.8	21.6	21.8	0.3	2.3	36.7
South Atlantic	50.8	3.0	20.0	10.5	0.6	1.0	14.1
North Central	36.6	5.0	18.4	17.4	0.1	1.7	20.8
South Central	63.4	2.9	15.2	9.1	0.1	1.0	8.3
Western	27.3	5.7	21.8	19.4	0.5	7.4	17.9

In Table IV the various occupations differentiated in the Census Report on Occupations have been classified somewhat in accordance with their natural ranking, the amount of skill they require, and the educational influence which they exercise over the people who follow them. In each element of the population the females are found to a larger extent than the males in the lower grades of skill. For both male and female negroes, the percentage of those engaged in unskilled labor is very large. For the other elements of the population there is an upward trend out of this lowest grade.

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[1] Twelfth Census Special Report on Occupations, 1904, p. lxxxvi.

[2] Special Report on Occupations, 1904, pp. xciv and cii.

TABLE IV

Percentage of Native and Foreign Born Elements and Negroes engaged in the Special Groups of Occupations classified by Sex: 1880, 1890, and 1900

Nativity and Sex	Year	Proprietary	Professional	Clerical	Skilled Labor	Factory Labor	Unskilled Labor
Native Born Males........	1880	35.91	3.12	4.29	11.55	5.83	39.30
	1890	35.82	3.74	6.75	14.59	6.26	32.84
	1900	31.41	3.96	9.00	15.20	6.43	34.00
Native Born Females.......	1880	3.28	7.54	1.61	1.62	20.65	66.30
	1890	7.72	9.32	5.36	2.10	23.40	52.10
	1900	8.67	12.50	12.50	2.83	29.00	34.50
Foreign Born Males	1880	27.81	2.02	2.78	17.58	13.25	36.56
	1890	24.77	2.15	4.18	19.98	12.78	36.14
	1900	23.36	2.45	5.11	19.45	14.19	35.44
Foreign Born Females.......	1880	4.16	2.56	.82	1.58	30.37	60.52
	1890	7.08	2.52	2.39	1.82	27.46	58.37
	1900	7.95	2.94	4.70	1.71	30.18	52.52
Negroes Male	1890	26.65	1.20	.39	6.07	3.37	62.32
	1900	25.98	1.15	.46	5.51	3.92	62.98
Negroes Female	1890	5.45	.90	.08	....	2.91	90.06
	1900	6.07	1.19	.12	.04	2.86	89.72

Prepared by Mr. H. J. Dahl, of the University of Wisconsin, from the Reports of the Twelfth Census, and from Mr. W. C. Hunt's monograph, entitled, *Workers at Gainful Occupations*, published in the Bulletin of the Department of Labor, No. 11, July, 1897.

QUESTIONS

1. Is the employee in a planing mill in a worse position than the old-time carpenter who has to do his planing by hand?
2. Is an insurance agent a producer of wealth?
3. What would happen if there should be too much saving?
4. When you spend money, do you ordinarily think of how hard you had to work to get it?
5. Why is Massachusetts the center of the boot and shoe industry?

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Valuable collateral reading will be found in recent bulletins of the Census Bureau describing specific branches of production.

[illegible] Bus. Org. [illegible] Financing [illegible]

CHAPTER X

BUSINESS ORGANIZATION

THE dominance of "business" in our present social economy is so familiar and commonplace a thing that we are apt to forget its real significance. But it indicates, as nothing else does, the cleavage that exists in modern times between money making and the other things of life — between exchange economy and domestic economy. Commerce and manufactures have each in turn been brought under the dominion of business enterprise; business methods and motives are also of the first importance in agriculture, although in this last field production for domestic use still continues and promises to continue hand in hand with production for the market.

"Business" means profit seeking. It does not cover so broad a field as does "production," nor is it quite the same thing as "production for the market." Business is acquisitive rather than productive, and while acquisition usually implies production, this is not invariably the case. The economic world, in its business aspect, is a world of buying and selling rather than of making and using things; it is a world in which prices, expenses, debts and credits, and contractual relations are the dominating things rather than the technical processes of production or the ultimate costs of production as measured in human effort and sacrifice.

The Nature of Business Units. — Under competitive conditions profit seeking involves risk taking. The business world is made up of profit-seeking, risk-taking units, — entrepreneurial units. We are apt to think of business units as concrete things, composed of individual men or groups of men. In an ultimate sense this is true, but for present purposes we may more profitably view business units as abstract things, — the centers or *foci* of the contractual and other legal relations that bind the business world together. These relations are recorded and stated more or less fully in the accounts of each business unit; ultimately, however, they are matters of legal fact, and, as we shall see, the *legal* aspect and the *accounting* aspect of these relations are not always identical.

Without entering into either the general theory or the details of accounting, we may note that the simplest general way in which a business unit can be described by its accounts is by means of the *income statement*, which is a simple record of money receipts and money expenditures during a given period, such as a month or a year. Of more significance, however, in the present connection, is the *balance sheet*, which is the statement of the assets or resources and the liabilities or obligations of the business unit as they exist at a particular time. The income statement is a historical record, the balance sheet a photographic snap-shot.[1] The following is a simplified form of balance sheet for a small manufacturing establishment: —

ASSETS		LIABILITIES	
Land and buildings	$190,000	Original capital invested	$200,000
Machinery and fixtures	50,000	Income reinvested	60,000
Raw materials, goods in process, and finished goods on hand	60,000	Accounts payable	30,000
Accounts receivable	8,000	Profits	25,000
Cash on hand and in banks	7,000		
Total assets	$315,000	Total liabilities	$315,000

The itemized assets explain themselves, but the meaning of the various liabilities may not be so clear. In this statement all the items of the liabilities except "accounts payable" refer to the liabilities of the business unit, as an abstract entity, to the owner or owners of the business, — the amount which would be left if the business were sold as a whole at a price just equal to the total imputed value of the assets minus the actual outstanding obligations (the accounts payable).[1] It will be noted that the item called "profits" is the variable by which the account is balanced. On such a showing as this the owners might decide to take $5000 out of the business as dividends, or personal profits, as the case may be. This would reduce the "cash" to $2000 and correspondingly reduce profits. They may decide, also, permanently to retain $10,000 of their earnings in the business. "Profits" would then be reduced to $10,000, and the "income reinvested" or "surplus," as it is often called, would be increased to $70,000. In practice "surplus" and "profits" often constitute only one item in the accounts. In the case of corporations the "original investment" item is called "capital" and represents the par value of the corporation's securities, whether the full amount has been actually paid in or not. Surplus profits in such cases can be easily converted into "capital" by means of "stock dividends."

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[1] The *profit-and-loss statement* is another important exhibit. It differs from the income statement in that it is a showing of the amount of sales in a given period compared with the expense of producing the particular things sold. Accurate profit-and-loss statements represent the highest achievements of modern accounting and cost-keeping methods.

In the legal aspect, however, the business does not always appear to have so distinct a unity of its own. This varies with the form of business organization, of which there are three important types: the individual entrepreneur, the partnership, and the corporation.

The Individual Entrepreneur. — Any individual may set himself up as a business man, an entrepreneur, without any legal formality except the payment of the license fee which most states impose on some kinds of business undertakings, such as liquor dealing, and which some states, especially in the South, impose upon many kinds of undertakings. The individual entrepreneur still dominates the field in agriculture, small retail trade, and in local "shop industries."

In the legal aspect the obligations of a business conducted by an individual entrepreneur are the personal obligations of the entrepreneur. All of his possessions of whatever kind[1] are jeopardized by his business risks. If the entrepreneur conducts two distinct business undertakings, the assets of one may be seized, if necessary, to secure the liabilities of the other. The personal liability of the individual entrepreneur is accordingly said to be *unlimited.* The usefulness of this kind of business organization is limited, obviously, to small undertakings, where the capital and credit of the individual business man are adequate.

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[1] The form of balance sheet given in the text is in reality a simple adaptation of the kind of balance sheet used in the published statements of corporation accounting. But if the individual proprietor of a small business keeps an accurate ledger account with himself, the result is the same so far as the independence of the business as an accounting unit is concerned.

Partnerships. — A "firm" or partnership represents a joint undertaking by individual entrepreneurs. Partnerships are most common in mercantile undertakings of moderate size, in small manufacturing establishments, and in the professions. This joining of interests makes larger undertakings possible, but relatively increases the personal liability of the individual members of the firm. For each member is personally liable for all of the obligations contracted by the firm, as well as those contracted in the ordinary course of business by any other one member of the firm.[2] The partners may have a contract binding among themselves as to their respective contributions (of money or time), shares in profits, and liabilities. But a member released from personal liability by an agreement of this kind is still liable for all obligations incurred by the firm. The agreement only gives a basis for instituting legal proceedings to recover the amount of his personal losses from the other members of the firm.

Aside from (1) the excessive personal liability involved, the partnership is open to objection from the business man's point of view, because: (2) It is impossible for a partner to retire from a firm without dissolving the partnership and, possibly, breaking up the business. The death or insolvency of any partner has the same effect. (3) A new member cannot enter the firm nor can a member transfer his interests to another person without the consent of all the members of a firm, — requirements which naturally follow from the nature of a partnership. (4) The partnership form of organization is not adapted to undertakings requiring large investments of capital and hence requiring the coöperation of a large number of persons. What advantages the partnership has come from the ease with which it can be organized and dissolved, and from its elasticity, — that is, the ease with which the contractual relations among the partners, binding as among themselves, can be altered to suit any contingencies that may arise.

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[1] The "exemption laws" of some states constitute an exception which does not affect the principle involved.

[2] This refers to the status of the ordinary partnership under common law. The statutes of some states provide for a special form of *limited partnership*, in which one or more of the partners are *special partners*, who are not personally liable, save for their investment in the business, and who are allowed to take no active part in the management of the business. In a few states there is a special form called a *limited partnership association*, in which the liability of all the partners is limited. These are practically joint-stock companies with non-transferable shares. The *partnership in commendam*, which still exists in Louisiana as a heritage of the civil law, is essentially like the statutory limited partnerships of other states.

The Corporation. — The federal census of 1905 showed that although less than one fourth of the manufacturing undertakings included in that enumeration were organized as corporations, yet these produced nearly three fourths of the total manufacturing product (measured in money value). Most banks and insurance companies are corporations, while in the field of railway transportation corporations are in almost exclusive control. Account should also be taken of the large and growing number of mercantile undertakings organized as corporations.

In the case of the corporation the legal view and the accounting view of the business unit are practically identical. While the ordinary partnership is in law simply a group of individual entrepreneurs, the corporation is regarded, for some purposes, as a "person." To the incorporated business unit, — an abstract thing, as we have seen, — the law imputes some of the attributes of personality, — and of a personality distinct from that of the individual men who are the stockholders of the corporation.[1]

Municipalities, universities, monasteries, guilds, etc., were commonly incorporated by royal charter long before business corporations of the

[1] Several states authorize the organization of "joint-stock companies" which are like corporations in all essential particulars, and are sometimes called "quasi-corporations." In theory they are incorporated partnerships with transferable shares and (usually) with limited liability.

modern kind arose, — for this did not occur until the rise of "capitalism" in the seventeenth century. The great trading and colonizing companies, such as the British East India Company, the London Company, the Virginia Company, etc., were the prototypes of the modern business corporation. In connection with these trading companies the *joint-stock* principle, which had already been used in a few isolated instances of banking, was developed. This was the practice of issuing certificates to those who made contributions to the "joint stock" (or capital) of a company, which entitled the holder to a proportionate share in the profits accruing to the joint stock. The modern business corporation, like these early trading companies, is based essentially on the combination of the joint-stock principle with the legal recognition of the business unit as a distinct entity.

At the beginning of the nineteenth century what few corporations there were in America were, for the most part, banks, insurance companies, or canal and turnpike companies. The introduction of railways in the third decade of the century greatly stimulated the organization of corporations, because these new undertakings required larger investments of capital than could be furnished by any individual or firm. State enterprise, it is true, promised at one time to be an important factor in canal and railway building, but such state undertakings were usually planned with the purpose of developing natural resources, attracting immigration, and building up the trade of particular districts and particular cities rather than of getting money profits. Most of these state undertakings had succumbed by 1840, so that the field was left open for business enterprise. In the general expansion and reorganization of business that followed the Civil War the corporation form of organization began to be more generally used for all kinds of business undertakings. The growing importance of corporations in business life is partly an effect and partly a cause of the growing size of the business unit.

The Corporation Charter. — The corporation is a creature of the state, its right to exist being dependent on a *charter* or on *articles of incorporation*, granted or approved by the state. Incorporation formerly necessitated a *special act* of the legislature in each case. This gave opportunity for favoritism and monopoly and subjected corporations of all kinds to hostility and suspicion. Most corporations are now organized under *general laws*, whereby any group of men can secure a corporation charter by complying with certain prescribed conditions. In fact, all but six states now have constitutional provisions against the granting of charters to business corporations by special act.

It was formerly a common practice to grant corporation charters in perpetuity, but the decision of Chief Justice Marshall in the Dartmouth College case, whereby the corporation charter was declared to constitute a binding contract between the state and the corporation, which could not be altered or amended by the state except with the consent of the corporation, has led to the general practice of limiting the life of corporations to terms of from twenty to one hundred years, fifty years being a common period. The corporation may, of course, secure a new charter at the expiration of the old, but the limited term gives the state the opportunity to change the requirements of the charter from time to time, or to refuse reincorporation altogether, as may seem most desirable. Most states, moreover, now specifically reserve the right to alter or amend the corporation charter at pleasure.

Corporation charters, or articles of incorporation, usually contain details relating to such matters as the purpose or purposes for which the corporation is formed, its principal place of business, the number of its directors, and the amount of its capitalization.

Lack of Uniformity in State Laws. — Many difficulties in the public control of corporations have arisen from the fact that while charters are granted by individual states, the activities of many business corporations extend over the boundaries of many states. Moreover, some states are much more lenient than others in such matters as the control of capitalization, requirements as to publicity, limitations on the scope of activity of a single corporation, taxes and fees, etc. New Jersey has become known as the "home of corporations" despite the fact that some states have even more lenient laws than New Jersey. New Jersey has been favored, however, on account of the proximity of New York City, — the real home of most of the greater corporate interests of the country, — as well as on account of its early start and the adaptability of its laws to the most modern type of corporation, — the holding company. (See p. 150.)

Other states, with stricter laws, could not prevent corporations organized under lax laws from doing business within their territory so far as that business is *interstate*. So far, however, as a corporation organized under the laws of one state carries on any part of its business wholly within the borders of another state, the latter state has the right of refusing to recognize it as a corporation; that is, the right to treat it as a mere partnership. In practice, however, one state freely recognizes the corporations of another state under the rule of "interstate comity." In fact, many corporations transact all their business outside the borders of the state which chartered them. The real standards, therefore, are the laxest standards, not the highest. More use on the part of American states of the power of exacting certain standards from "foreign corporations," as they are called, is much to be desired.

Corporation Capital and Securities. — In a strictly legal sense the *capitalization* of a corporation is the amount of its authorized capital stock. This capitalization represents, in theory, the amount of money actually invested in the business by the original stockholders. As a matter of fact, the full amount of the authorized capital is rarely paid in at the organization of a new corporation. The capitalization is apt to be, in practice, a purely arbitrary thing, — a nominal money sum divided into units or shares, the *relative* holdings of different individuals being measured by the number of shares they own.

Corporation stock is divided into two general classes, — *preferred stock* and *common stock*, although many corporations issue only the latter. Preferred stock represents a prior claim on the earnings of the corporation. A corporation which has "6 per cent preferred stock" outstanding can pay no dividends to its common stockholders until it has paid 6 per cent dividends on its preferred stock. Preferred stock may be *cumulative* (in which the prior claims to dividends accumulate from year to year, if unpaid) or *non-cumulative*. It may or may not have any claim on any part of the surplus profits remaining after a certain rate of dividend has been paid on the common stock. There may be several different grades of preferred stock, — first preferred, second preferred, etc.

In the popular use of the word the capitalization of a corporation includes also its *funded debt*. The funded debt is represented by *bonds*, which are interest-bearing promises to pay certain sums of money at definite times in the future. There are many different kinds of bonds, but three principal classes are: (1) mortgage bonds, (2) collateral trust bonds, (3) income and debenture bonds. The first class is based on a mortgage of all or of a specific part of the property of a corporation. Collateral trust bonds are secured by the pledge of securities issued by other corporations, but owned by the corporation issuing the bonds. They have been much used in financing railway consolidations. Income and debenture bonds are usually secured only by the earning capacity of the business. Industrial corporations make less use of bonds than do railways, and confine themselves usually to the mortgage bond type, — of which, however, there are many subordinate varieties. In the case of many corporations the mortgage security behind an issue of bonds is in itself not of great importance, for the property mortgaged is apt to be worthless except as an integral part of a unified business establishment. The mere power of foreclosure, however, gives mortgage bondholders a position of strength in the reorganization of insolvent corporations.

Bonds are sometimes said to represent "creditor interests," and stock "entrepreneur interests." This statement is suggestive and is fairly accurate. In fact, however, stock and bonds are simply different kinds of equities in a business, — conveying the right to receive income, to share in the distribution of the assets in case of insolvency, and to have a voice in the management. Stockholders alone participate in the management of the corporation, although bondholders are often able to dictate policies when the affairs of a corporation are in a precarious condition. Bonds differ from stock in being terminable at a definite period of time in the future. In practice, however, the bonds of great corporations are usually replaced by new issues as rapidly as they mature.

Overcapitalization. — Much has been said about the overcapitalization of corporations, — "stock-watering," as it is called. Only a few states require that all the nominal capitalization should represent capital actually invested. In most states, moreover, it is not difficult for a corporation to increase its capitalization from time to time in order to secure funds from the sale of securities, or (in the case of stock-dividends) in order to afford a basis for the distribution of surplus profits without employing an excessively high interest rate. It is this last cause of increased capitalization that is of special importance in this connection.

On the one hand it is urged that capitalization is a nominal thing, that it is immaterial whether a corporation pays 12 per cent dividends on $1,000,000 of capital stock or 6 per cent dividends on $2,000,000 of capital stock. On the other hand it is said that capitalization should not be a merely nominal thing, but that it should represent the actual amount of the investment; that, without regard to the amount of capitalization, regularly recurring dividends of 12 per cent suggest excessive profits in a way that 6 per cent dividends do not.

The argument in favor of a closer correspondence between capitalization and real investment is especially strong in the case of railways and other transportation corporations with quasi-public functions, municipal public service corporations, and corporations enjoying natural monopolies of all kinds. For there is a growing feeling that such corporations are in a peculiar sense social trustees, to whom have been committed certain public economic functions that might very properly be performed by the state, if that course were deemed the more advantageous. That such corporations should be restricted to the payment of a reasonable dividend on reasonable capitalization would seem to be a proposition that is scarcely open to question.[1] Yet excessive profits are what make excessive dividends possible, and whether profits are excessive or not can be determined in most cases without reference to capitalization by the compulsory use of adequate accounting methods.

Overcapitalization should be looked at also from the point of view of the investor,—a point of view too often overlooked. When overcapitalization is permitted, it is frequently extremely difficult and often, indeed, impossible for the ordinary investor to know precisely what he is buying when he purchases a share of stock of an overcapitalized company. It helps to approximate equality of opportunity for all when there is an exact correspondence between investment and capitalization. If a person buys a share of national bank stock at $4000, he at once knows that the original investment was $100. The apparently high price immediately challenges attention, and the investor is led to look into the grounds of the high price. There are cases in which such a price would prove a remunerative investment, but it is well to warn the investing public by prohibition of overcapitalization. It has been strongly urged, and with some ground, that it is in every way highly desirable that the corporate property of the country should be more widely distributed; and to promote this end, every measure which gives the average man a "square deal" in investments must be strongly favored.

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[1] It is better to curtail excessive profits by public control of rates, prices, and services than by arbitrarily limiting the dividend rate.

While overcapitalization has thus many undesirable features, it has nevertheless sometimes been unduly emphasized in discussions of corporation reform, to the neglect of other and more important points.

In this connection we should note the difference between the "capitalization" and the "capital" of a corporation. The business world uses the term "capital" in two ways: it speaks of the total permanent investments, — the amount of money "tied up," — in a business as its capital, and it also speaks of the total selling value of the business as a whole as its capital. This last may depend in part on such intangible things as monopoly power or good will. It is measured by the "capitalized" earning capacity of the business, or, approximately, by the market value of the corporation's securities, as distinct from the par values which measure the nominal capitalization of the corporation.

Form of Capitalization. — A significant feature of recent development in corporation finance is the multiplicity of types of corporate securities. It is no uncommon thing, for example, for the equities in a railway corporation (in addition to the floating debt, or accounts payable) to be divided among a dozen or twenty varieties of bonds and two or three varieties of stock. This multiplicity of securities is of advantage to the corporation in that it enables it to offer to investors and speculators a carefully graded assortment of risks, — a fact which makes the total selling value of a corporation's securities greater than it would otherwise be. This complex kind of capitalization has, however, some undesirable features. If the owners of a particular security, — the common stockholders, perhaps, — control the corporation, they may desire to increase the value of their securities for speculative purposes by the payment of unearned dividends, very properly a criminal proceeding according to the laws of some states — a proceeding which would be opposed to the interests of the holders of all the other securities of the corporation. Moreover, in cases of insolvency and reorganization, it is a difficult matter to untangle and to adjust equitably the rights of the holders of the different kinds of securities.

In times of prosperity corporations often pay for extensions of their plants from the proceeds of bond sales, because it is estimated that the earning power of such extensions will more than suffice to pay the interest on the bonds and will afford a handsome surplus for the stockholders. Corporations thus accumulate in prosperous times an unwieldy load of fixed charges in the form of interest on bonds, — a fact which is apt to be a source of difficulty in less prosperous years. In periods of financial stringency these fixed charges are a common cause of insolvency, receiverships, and consequent reorganizations, from which the bondholders are apt to emerge as stockholders, and in which the stockholders are apt to lose their holdings. The legal restriction of the securities issued by any one corporation to one kind of stock and three or four varieties of bonds is both feasible and desirable. Nor should the bonded debt be allowed to greatly exceed the amount of the paid-up capital stock.

Corporation Management. — The management of business corporations is, as a rule, in the hands of boards of *directors*, elected by the stockholders from among their own number. The details of management are in the hands of officers, chosen usually by the directors. In principle this system achieves something like representative government of the affairs of the corporation. In practice, in the larger corporations, some of the directors are apt to be "dummy directors," — usually employees of the corporation, made directors in order to complete the number prescribed in the charter, — or are the representatives of great financial interests, and often of competing interests. Directors of this latter sort are not primarily concerned with the management of a corporation in the interests of its stockholders and bondholders. They are directors for the purpose of guarding special interests, and in many cases for the purpose of preventing "competition" from becoming anything more active than an armed peace.

In many cases the real direction of a corporation's policies is in the hands of an "executive committee" or "finance committee" of three or five directors representing the person or persons in actual control of the corporation.

Advantages of the Corporation as a Form of Business Organization. — From the point of view of the business man the corporation presents decided advantages over the partnership for all undertakings of considerable size. Some of its points of superiority are: (1) Stockholders usually have no personal liability for the corporation's obligations except so far as the full par value of their stockholdings has not been paid up.[1] (2) The relative permanence and stability of the corporation are of decided advantage, especially in undertakings requiring large investments of capital in relatively fixed and permanent forms. (3) The concentration of executive power in the hands of directors and officers leads to efficiency in management. (4) The transferability of corporation securities makes it possible for stockholders to enter or leave the undertaking at pleasure. (5) The division of the securities into small units and into different grades and classes affords opportunities to all kinds of investors, — the small and the large, the conservative and the venturesome. (6) All of the advantages named make it easier for the corporation to attract and to use efficiently large amounts of capital, furnished by many different investors.

Social Aspects of the Growth of Corporations. — That corporations do possess desirable features, from the point of view of business interests, is a fact clearly evidenced by the unprecedented growth of this form of business organization. In the main, efficiency for business purposes, for money making, means efficiency from the social point of view, productive efficiency, also. But, nevertheless, the two viewpoints are not identical, and what is desirable from one point of view is not always desirable from the other point of view.

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[1] Exception should be made of banking and insurance corporations, in the case of which "double liability" on the part of the stockholders is common. A few states impose some measure of personal liability upon the stockholders of all corporations organized under their laws.

The gap between money making and service to society (never quite identical things) is distinctly widened when those in control of a corporation's policies subordinate the profits to be obtained by the sale of its products to the profits to be obtained by speculation in its securities. Many of our greatest corporations are directed by men to whom fluctuations in capital values (as represented in the prices of securities) are a much more important source of personal income than are the net earnings of such corporations. The payment of unearned dividends, the nonpayment of earned dividends, the direction of a corporation's policy for the benefit of the holders of one kind of security among the different ones issued by the corporation, the effecting of corporate combinations and reorganizations that will affect the stock exchange rather than the produce market, — these are some of the more obvious results of the unfortunate relation between corporation management and speculation in corporation securities.

It should also be noted in this connection that the growth of corporations is bringing with it a subtle but very significant change in the nature of the institution of private property. So far as a large and increasing proportion of productive wealth is concerned, we are losing that direct relation of ownership between men and goods which Arthur Young had in mind when he said, "The magic of property turns sand into gold." We often have, instead, several layers of corporation securities interposed between the ultimate owners and the ultimate objects of ownership. The effect of this will undoubtedly be to bring about the more thorough domination of business principles in the business world. Sentiment, the honored traditions of long-established firms, the "pride of ownership," the joy of workmanship (which may be felt by the employer who turns out a good product, as well as by the workman) are bound to yield yet more completely to the sway of the cold logic of corporation accounts and stock-market quotations. The adequacy of purely business principles as the foundation of our economic life will be tested more thoroughly under the corporation form of organization than ever before.

Trusts. — A distinctive feature of the economic development of the past thirty years has been the combination of individual corporations into larger concerns, or trusts. The "trust," in the technical sense, involved either giving a board of trustees the absolute control of the actual properties of the different concerns in the corporation, or what amounted to the same thing, assigning the stock of such corporation, with its voting power, to them in exchange for "trust certificates," on which dividends were paid. The Standard Oil Trust of 1882 was the first combination of this kind, but it was speedily followed by several others. In 1890, in a case brought by the state of New York against the sugar trust, the trust agreement was held to be illegal under common law. Corporate combinations were not destroyed by this decision. They changed, however, to a more definitely coherent form, — that in which a single great corporation dominates the consolidation.

In most cases, this corporation, which is usually organized for the purpose, does not own the actual plants of the various concerns in the combination, but simply owns all or a majority of the stock of each. It is accordingly called a "holding company." The holding company exchanges its own securities for the securities of constituent companies, or, when necessary, it buys the securities of the constituent companies with funds secured from the sale of its own securities, — sometimes by the sale of bonds secured by the pledge of the securities of constituent companies as collateral. Not only in industrial consolidations,[1] but also in railway and electric railroad mergers has the holding company device become important.

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[1] A very complete list of "trusts," prepared by Mr. Byron W. Holt for the *World Almanac* (1908), contains the names of about 250 industrial combinations, most of which are holding companies.

From the point of view of business organization the holding company is simply an extension of the principle of the corporation. The holding company needs for purposes of control only a majority interest in the stocks of its subsidiary corporations. Various holding companies may in turn be combined by means of one larger holding company, — and the process may, and does, go even further. An individual capitalist may, by an investment of $1,000,000, for example, control a holding company with a stock issue of $2,000,000, which in turn may control corporations with $4,000,000 of stock outstanding,[1] — and some of these last may in their turn be holding companies. The result is a tremendous concentration of industrial and financial power, with the minimum of liability. The uncontrolled use of the holding company device leads to neglect of the interests of the minority stockholders in the various corporations concerned; to difficulty in fixing the legal responsibility for corporate misdeeds; to an undesirable complexity in the economic and legal relations of the holders of securities in the different corporations, and to the subordination of industrial to speculative ends.

The "trust problem," however, has attracted more attention as a problem of monopoly than as a problem of business organization. The problem of monopoly will be considered in another chapter. Here it is sufficient to note that combination and monopoly are not identical things, that we may have either one without the other. It is true, however, that the movement toward combination originated as one manifestation of the efforts of men engaged in competitive undertakings to escape from the restraints imposed upon them by the fact of competition. Price agreements, selling bureaus, division of territory, limitation of output, pooling, etc., are other forms of the same general effort.

The specific motives usually mentioned as the most important causes of corporate combinations are (1) the greater economy of the large-scale business; (2) the elimination of purely competitive expenses (some kinds of advertising, for example); (3) the power to limit output and control price. The first of these factors suggests the difficult question of the most profitable size of the business unit. Without discussing this point in detail in this connection we may note that the significant thing is the most economical size of the industrial *plant* rather than of the business unit itself. Some of our present-day business units are so large that they operate a number of duplicate plants. To that extent, at least, they are larger than is necessary to secure maximum technical efficiency. Whether competitive expenses and competitive prices are eliminated by combination depends on whether the combination has any real basis of monopoly power over and above the mere fact of combination, which, taken alone, can give at most only a temporary monopoly.

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[1] It is assumed, for convenience, that the stock in each case is worth par and that the ownership of half of it will give substantial control. In the case of industrial combinations ownership of all the stock of the subsidiary companies by the holding company is not uncommon.

It is plain, however, that if any or all of these three classes of advantages do exist in the case of a particular combination, the earning power of the combination will be greater than the total earning power of the separate concerns before consolidation, — a difference which will be reflected in the value of the securities of the holding company. It is this increment in capital value, due to the real or expected advantages of consolidation, that has been the chief cause of such combinations. The organization of trusts has in many cases been effected by professional "promoters," whose connection with an undertaking does not continue any longer than is necessary in order to secure the profits of consolidation. A few great trusts like those which dominate in the oil, sugar, steel, and tobacco industries have been conspicuously successful in a business way. Many others were "made to sell"; that is, were organized only in order that profits might be gained through the sale of their securities, and have been weighted down by a capitalization not justified by their actual earning capacity. Some of these have already been reorganized, with diminished capitalization; others, possibly, only await the test of a prolonged period of financial depression.

Anti-trust Laws. — Most states have statutes and some have constitutional provisions against "combinations in restraint of trade." These are aimed primarily against the large corporations of the kind described, although if strictly construed they also make illegal the whole mass of price agreements and trade restrictions, general and local, which are a much more common and characteristic feature of modern business than is generally supposed. Anti-trust statutes have accomplished but little, because they have been aimed at forms rather than at facts, at symptoms rather than at fundamental causes. If there is monopoly, with resulting high and discriminatory prices, the social action needed is the rooting out of the fundamental cause of monopoly, or, in some cases, a frank recognition of the fact of monopoly, coupled with the proper public regulation of prices and services. If evils appear in the undue concentration of financial power, and in the dominance of speculative motives in business management, the social action needed is more stringent control of the methods, purposes, and conditions of corporation organization and corporation management. The corporation problem and the monopoly problem are distinct things. The "trust problem" may mean either one thing or the other.

The Sherman anti-trust act of 1890 is a federal law, making "combinations in restraint of trade" criminal, so far as the field of interstate commerce is concerned. It has the defects of the similar enactments of the individual states. It has been used to some extent by the government as a means of breaking up railway combinations, but the results of this application of the Sherman act have been generally considered to be unfortunate.

Publicity. — There is a general agreement among students of corporation problems that greater publicity as to the details of corporate management is much to be desired, both as an end in itself, and as constituting a basis for the intelligent control of corporations. We may distinguish four kinds of publicity: (1) opening of accounts and records to the inspection of stockholders; (2) opening of accounts and records to the proper administrative officials of the state or federal governments; (3) periodical financial statements to stockholders; (4) periodical financial statements to proper administrative officials.

Of these different kinds of publicity the second, third, and fourth are unquestionably desirable. The publicity of railway accounts and the development of uniform railroad accounting under the interstate commerce law has been of great benefit to the public, to investors, and to the railways themselves. In respect to the first kind of publicity mentioned, it can hardly be thought right that every small stockholder should have an unlimited right of access to a corporation's books, especially in competitive undertakings.

Federal Control of Corporations. — It has been suggested by many writers that the unfortunate effects of the lack of uniform state requirements as to publicity, capitalization, purposes of corporation organization, etc., could be remedied to some extent by federal action. Canal, railway, and bridge companies have in the past been chartered by the federal government, just as national banks are now. It would be legally possible and economically advisable to require at least a *federal license* from all corporations engaging in interstate commerce. Moderate and just requirements as to publicity, and possibly as to capitalization and other things, might very well be imposed as the price of a federal license. Aside from the present lack of uniformity in state laws, the mere size of modern business corporations and the extent of their operations make it difficult for any individual state or states to control them efficiently.

QUESTIONS AND EXERCISES

1. What are the terms under which corporations are chartered in your own state? What "anti-trust" laws are in force there?

2. Explain the various items in the published balance sheet of some industrial corporation.

3. What limitations should be attached to the statement that "a corporation is a fictitious person."

4. Does the word "capital" mean the same thing in accounting and in economics?

5. Report on the history of one of the following: United States Steel Corporation; American Sugar Refining Company; American Tobacco Company; International Harvester Company.

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PART IV

VALUE AND EXCHANGE

CHAPTER XI

VALUE AND PRICE

If every family produced all the goods needed to supply the wants of its members, most of the problems which to-day confront economic science would not exist. Most of the world's workers are, however, contributing their services either directly or indirectly (through the production of goods) toward the satisfaction of the wants of others. One's economic well-being to-day depends primarily on two things: the money income which can be got from others in return for one's services or for the use of one's land or capital, and the amount of things that can be bought with this money income. The federal census of 1900 showed that about 93 per cent of the men over twenty years old and about 18 per cent of the women of corresponding age were employed in money-making occupations; and this number does not include those landlords and capitalists whose income was derived entirely from their investments. The work of the housewife and the services of friendship embody utilities, that is, satisfy human wants, just as do money-making activities, but they are not measured in terms of dollars and cents. The production of wealth is in these days mostly "for the market," and wants are satisfied very largely by goods obtained from the market. Most goods get from those who produce them to those who use them only by the processes of exchange.

The Meaning and Significance of Value. — One of the most fundamental of all economic problems relates to the ratios at which goods are exchanged for one another. These ratios are called exchange values. *The exchange value of a good is the quantity of other goods that can be obtained for it.* Exchange value is often called objective value, and is to be sharply distinguished from subjective value, which, it will be remembered, measures the importance attached by an individual to a particular unit of a commodity. In this chapter the word "value" is to be understood as meaning exchange value. It is evident that the value of a commodity will vary with conditions of time and place, and that at any particular time and place it might be expressed in a number of different ways. A pair of shoes might be exchanged for four bushels of wheat, for two hats, or for other quantities of other commodities. In this sense any one commodity will have not one, but many, exchange values. It is, however, customary to-day to express the values of all commodities in terms of one other commodity, money. *Price is exchange value expressed in terms of money.* There are 23.22 grains of gold in our monetary unit, the gold dollar. Thus, when we say that a pair of shoes is worth four dollars, we indicate that they have four times the value of 23.22 grains of gold. When the words "value" and "price" are used interchangeably, as will sometimes be the case in this chapter, there is implied the assumption that the value of money is constant — an assumption which, of course, does not entirely correspond with the facts.

The process by which the ratios at which goods are exchanged is determined is called "valuation." This word is used in a narrow sense as referring to the fixing of the exchange values of commodities; in a broader sense it includes also the determination of the different rewards received by those who have contributed to the production of these commodities. In this broad sense the problem of valuation is the problem of the distribution of wealth. Imagine the case of a mechanic employed at a particular time in the manufacture of machinery that will be used in a flour mill. The final product of the mechanic's labor — the only product directly useful in the satisfaction of human wants — is the flour, or bread made from the flour. To the making of this final product thousands besides our mechanic — farmers, agricultural laborers, railway officers and employees, other mechanics, and so on in a practically endless list — have contributed. What determines the value of the final product? What proportion of this value goes to the mechanic? What is his share worth to him as the means of getting the necessaries of life? Of these three questions, the first and third fall within the problem of the valuation of commodities; the second, relating to the valuation of the mechanic's services, falls within the problem of the distribution of wealth. At present we are concerned with valuation in its narrower sense, although the principles to be developed apply also in the case of the valuation of the services of the factors in production. The significance of the subject of value in economic science lies in the fact that, within the conditions set by existing institutions, and within the limits set by the total production of wealth, human welfare, so far as it is dependent upon the possession of economic goods, is largely determined by the process of valuation.

The Market. — It is conceivable that the values of goods might be fixed by public authority, or that the production of the most important commodities might be monopolized. Then, too, it is possible to imagine a condition of society in which custom should have such power that values, when once established, would be changed very infrequently. Still another possibility would be a régime of competition in which every man would be left free to buy and sell as he pleased at such prices as he could get. The first three factors — public authority, monopoly, and custom — are among the things which determine the ratios at which goods are actually exchanged to-day; but the dominant factor is the fourth one mentioned — the free competition of the market.

In this connection we mean by the market, not a particular place for buying and selling, but *the general field within which the forces determining the price of a particular commodity operate.* For some commodities, especially perishable ones, like fresh milk and cream, the market is distinctly a local one. In the case of great staple commodities like wheat and cotton, the market is a world market, for it is impossible that the prices of wheat or cotton in Europe should differ for any considerable time from their prices in America by more than the expense of transportation. So-called "international" securities, such as government bonds and the stocks and bonds of certain great corporations, afford even a better example of goods for which the market is a world market. Some commodities are used only in a particular locality or country, although produced in many different places. The American consular reports frequently contain advice to American manufacturers as to special kinds and varieties of goods used in different foreign countries. The cotton mills of England, Germany, and the United States all make special grades of cotton cloth designed especially for the Oriental market. Much more numerous, however, are the goods which, although of wide and general consumption, are produced in but few localities. This is especially evident in the case of agricultural and mineral products, but it is increasingly noticeable in manufactures.

Along with this localization of industry there has been a broadening of the field of consumption of many commodities. Among the factors which have contributed to this result may be mentioned, first, the increasingly cosmopolitan character of modern life, — a result of more generally diffused facilities for higher education, as well as of the growing ease of travel and communication, and secondly, what has been called the "standardization of taste," — a result in part of modern advertising methods and of the standardization of products which is one of the fundamental features of modern machine industry. Notwithstanding the barriers which still exist in the form of protective tariffs and local prejudices, a dominant feature of modern markets is the localization of production and the extension of the field of consumption.

The Conditions of Competitive Valuation. — It is often assumed that competitive prices are in some way "natural" and right prices. To guard against this error it is only necessary to remind ourselves that competition operates under the limitations imposed by the fundamental institutions of the existing social order. In the analysis of valuation under purely competitive conditions, we shall assume the existence of private property, since, strictly speaking, it is the property rights in various goods that constitute the things that are bought and sold. It is necessary, also, to assume the existence of the right of free contract — the right of each man to sell for what he can get, and to buy for as little as he can bargain to pay. So far as society limits the right of private property and the right of free contract, it alters the conditions of competition and correspondingly affects the values fixed by competition.

Supply and Demand. — The only goods which are valued in the market are economic goods; that is, such goods as combine the characteristics of utility and scarcity. This statement is a truism, for no one will pay for things that he does not want or for things that can be obtained freely. Utility and scarcity affect the market value of goods through the operation of the forces of demand and supply. The general "common-sense" explanation of the valuation of goods takes the form of the statement that values are determined by supply and demand. When rightly interpreted, this statement cannot be criticised, but it is often used in an entirely erroneous sense. Producers do not usually throw their goods unreservedly on the market, accepting any price that can be got for them, nor do consumers generally demand definite amounts of goods, without reference to the price of them. An entirely accurate statement, and one that is less apt to be misinterpreted, is that *prices are among the factors determining supply and demand.* It may seem, accordingly, something like arguing in a circle to attempt to explain value by using the formula of supply and demand; but the fact is that the explanation of value is to be sought in the action of mutually dependent forces, rather than in any one principle. Our next task is, therefore, the analysis of supply and demand.

The Nature of Demand. — Mere desire for a commodity is not demand for it. The desire of the poor man for the counterpart of his wealthy neighbor's automobile is in no sense demand. *Effective demand* is sometimes defined as desire coupled with the ability to pay. But to make demand really effective there must be added to these the inclination to buy: desire must be intense enough to lead to purchase. As has been shown in a previous chapter, intensity of desire cannot be thought of as existing for a commodity in general, but only for particular units of a commodity. The intensity of one's desire for an additional unit of a commodity depends upon the extent to which one's wants are satisfied by one's existing supply of that commodity. This is the same as saying that the intensity of our desire for a commodity is measured by its marginal utility.

Every person tends to keep the marginal utilities of the different kinds of commodities he consumes equal. Either by a conscious balancing against each other of the pleasures to be obtained from two or more possible purchases, or oftener, by simply buying the things which we want more than we want other things, we tend to keep our unsatisfied wants in a state of approximately equal intensity. Every person thus has what has been called a *margin of consumption*, which is measured by the utility that would be obtained by the expenditure of another dollar (or any other small amount of money) for any one of the things that he consumes. An important thing in the explanation of demand is the fact that this margin of consumption differs for different persons, as well as for the same persons at different times. An individual's margin of consumption depends primarily on his income, but also on his tastes and habits, his instinct for saving, and the extent to which he estimates present wants more highly than future wants. Then, too, one's desires are constantly changing under the influence of whim, fashion, satiety, sellers' advertising, education, travel, reading, and new experiences of all kinds. Expenditures of all sorts are thus called into being by the necessity of maintaining the level of the margin of consumption. The advertiser may succeed in making us think that we want his goods more than we want other things that we could purchase with the same amount of money; reading may so stimulate our desire for travel that we are willing to curtail other expenditures in order to secure it. Education ought to affect the quality as well as the quantity of our wants.

But even if our desires were constant, changes in prices would in themselves effect continual alterations in the proportions of various things that make up our purchases. If the price of a commodity decreases to such an extent that an additional dollar's worth has a utility greater than our margin of consumption, we normally purchase it. If the price rises, we normally curtail our expenditures for this particular commodity, and may even, under some circumstances, become sellers of it (as in the case of the householder who has bought a large supply of coal at five dollars per ton, and who, when the price rises to ten dollars, is willing to sell part of it). Some of the foregoing discussion may seem to be a statement of what is obvious and commonplace, but the neglect of these seemingly obvious factors is responsible for more than one erroneous explanation of the way in which values are determined.

The Demand Curve. — The relations between price and demand may be shown concretely by the analysis of the conditions in a hypothetical market. Imagine the case of an isolated community in which there is considerable use of wood as a fuel. The conditions might be such as are represented graphically in Figure 1. In this diagram distances measured from *O* along the horizontal line *OX* represent different amounts of wood, while distances measured vertically from the line *OX* represent prices. Assuming that the conditions of demand were as represented in the diagram, if the price of wood were *MP* dollars a cord, *OM* cords of wood would be bought. If *MP* represents a relatively high price for wood, this might mean that many families would choose to go without wood, using other kinds of fuel instead. Others would be content with a scanty supply. If, however, the price were reduced to *M'P'* dollars per cord, some of the families who would have refused to buy at the higher price would purchase wood, while others would increase their purchases, so that *OM'* cords would be bought. Similarly, at the price *M''P''*, the amount bought would be *OM''* cords. Other possible prices might be indicated on the diagram, so that, in general, the curve *DD'* (which we may call the demand curve) represents the relation between price and the amount demanded. The rectangle *OM'P'A'* rep-

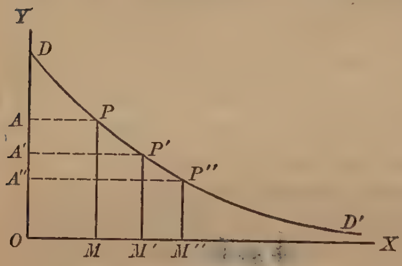

Fig. 1

resents the total amount the community pays for wood when the price is $M'P'$, just as the rectangle $OM''P''A''$ represents the total amount paid when the price is $M''P''$. It often happens that this total value is less when the price is low than when the price is high, although the amount bought at the lower price may be double or treble the amount that would be bought at the higher price. This means not only a better satisfaction of wants with a smaller expenditure of money, but also that more money is available for the purchase of other things; so that there is a general lowering in the margin of consumption — a better satisfaction of wants in general. If, however, the relations between price and demand were such that the rectangle $OM''P''A''$ would be larger than the rectangle $OM'P'A'$, the existence of the lower price would necessitate curtailing expenditures for other things. This might involve only a decreased use of substitutes for wood, such as coal; more often, however, it would mean a diminished consumption of a number of other things. But any decrease in the price of any commodity of general consumption, other things remaining equal, means always a lowering of the margin of consumption of all persons increasing their use of the commodity in question. For the lower price would not be accompanied by the purchase of a larger amount of wood if the additional wood did not satisfy more intense wants than would other things that might be purchased with the money.

In this way the demand ~~for any one commodity is affected by~~ the demand for any other commodity. The competition of the market thus embraces not only the buying and selling of a given commodity (like wood), but also the buying and selling of all commodities. In this sense the wood dealers compete with the grocers and the tailors, as well as with coal dealers and with each other.

The Elasticity of Demand. — By the elasticity of demand we mean the extent to which the amounts demanded vary with changes in price. In every family in poor or moderate circumstances the housewife carefully economizes in the use of eggs during periods when they are high in price, using them more freely when the price is lower. In such a case the demand for eggs is an elastic one. Relatively inelastic are the demands of most families for such things as flour and salt. Other commodities, such as sugar, may occupy an intermediate position. Figures 2 and 3 represent, respectively, elastic and inelastic conditions of demand. Without giving further concrete examples, the following propositions respecting elasticity of demand may be stated: — (1) Demand for necessities is in general less elastic than demand for luxuries. (2) Demand for commodities the use of which constitutes a habit is less elastic than demand for commodities the use of which is generally a matter of conscious decision. (3) The more adequate the substitutes for a particular commodity the more elastic will be the demand for it. (4) The demand of persons of large income is less elastic than that of persons in poor or moderate circumstances. (5) A corollary of proposition *four* is that the higher the general level of well-being in a community, the less elastic will be the demand for most commodities.

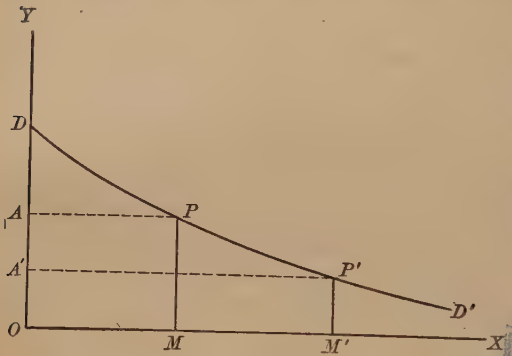

FIG. 2

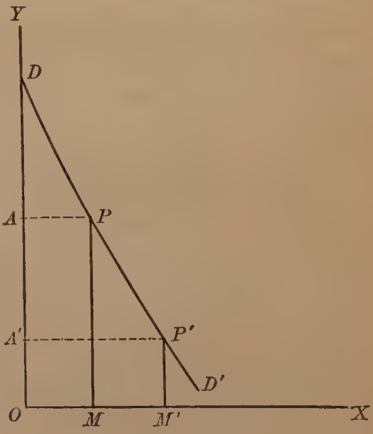

FIG. 3

Consumers' Surplus. — Whatever the price of a competitively produced commodity may be, there are almost always some buyers who would have paid more if it had been necessary. Referring to Figure 1, if the price is

$M'P'$, those who are just willing to pay that price, who would either have bought less or bought none if the price had been higher, may be called the marginal buyers. These are relatively few in number, however, as compared with those who would have bought even if the price had been higher. The utility of the marginal purchases to the buyers is but little more than the utility of other things that could have been bought with the same amount of money: in such cases the utility of the purchase only about equals the sacrifice involved. In the case of all other purchases, however, there is a *surplus of utilty over costs* (whether costs are measured as money costs or as the utility of the other possible purchases which are given up) which is called *consumers' surplus* (or sometimes consumers' rent, or buyers' gains). It might be supposed at first thought that if the price were, for example, $M'P'$ (Fig. 1), the area included between the horizontal line $A'P'$ and the curve DP' would represent consumers' surplus. This is not exactly true, however, and that for two reasons: in the first place, the satisfaction of additional wants which a lower price makes possible may make the more important wants less intense. A man might be willing to give ten dollars for a cord of wood in order that at least one room in his house could be heated during the winter. He might also be willing to give seven dollars a cord for two cords, so as to heat two rooms, but the heating of the second room might render the heating of the first room less important to him. He might not be willing, for example, to give ten dollars plus seven dollars in order to have the two rooms heated. In the second place, utility itself is to a large extent affected by price. So far as our purchases satisfy what has been called the desire for distinction, or represent what Professor Veblen has called "conspicuous consumption," a lowering of the price of a commodity would lessen its utility to us. The successful production of artificial diamonds at a low cost would lessen the desire which most people have for natural ones. If touring cars were less an indication of one's ability to spend money freely, they would be less esteemed by a good many people. On the other hand, it might occur in some cases that a certain amount of decrease in the price of a commodity, permitting a more general consumption of it, would increase the esteem in which it is held by those who are glad to follow fads. In general, we must say that even if we had absolutely complete statistics of the actual relation of prices to demand, consumers' surplus would still be an incommensurable thing. It is nevertheless a real thing, and is especially significant as constituting one of the differences between real income and money incomes. It should be noted, however, that consumers' surplus relates only to one's consumption of a particular commodity, taken by itself, for as we have seen, the amount which we are willing to spend in the purchase of any one commodity depends not only on the price of that commodity, but also on the price of the other commodities that make up our purchases. The surpluses which a consumer gets in his different lines of consumption cannot be added together to form a total.

The Nature of Supply. —The amount of goods that will be supplied in a given market at a given time depends, like the amount demanded, on the price. "Forced sales," in which goods are offered for whatever can be got for them, form about the only important exception. The effect of price on supply varies, however, according to the length of time that is taken into consideration. The work that is being done to-day in the extension of old factories and the building of new ones, the construction of railways, the taking up of new land, is based on estimates of future prices, the present prices of agricultural and manufactured products and of railway transportation being of significance only so far as they indicate what future prices will be. The merchant's stock in trade is bought on an estimate of future business conditions; the amount of land the farmer allots to wheat and corn, respectively, depends on his estimate of the relative prices the two will bring after the harvest. In a similar way the amounts of goods that can be supplied to the market to-day are limited by the estimates which business men and farmers have made in the past of the prices which buyers are willing to pay to-day. It would be possible, though not necessary for our purposes, to analyze the way in which the amount of the capital and labor which have thus been applied to the production of things that will satisfy present wants was partially determined by conditions which existed still farther back in the past, and so on in an indefinitely receding series. The amount of goods available for the market of to-day is thus limited not only by past estimates and conditions, but also by present estimates of future conditions. Every seller has the option of selling at the present price or of waiting for possibly higher future prices — an option which is limited only by the perishability of his goods and the urgency of his need for money. And the most urgent need for money does not necessarily force an immediate sale if his opinion as to the future value of his goods is a reasonable one, for in this case it is usually easy to borrow money on the strength of the marketable value of the goods.

The Supply Curve. — In the analysis of the conditions of supply existing in a particular market at a particular time we do not have to take account of the limitations imposed by the forms which productive efforts have taken in the past. At any given time a certain definite amount of a commodity is available for the market: this forms what may be called the *potential supply*. The proportion of this potential supply that sellers will be willing to part with at a particular time will depend primarily on the prices they can get. If the price of a unit of a commodity is *M′P′* (Fig. 4), the sellers will be willing to sell a certain number of units of it, which may be represented by *OM′*. If the price were as low as *PM*, however, some sellers would prefer to wait for higher prices, the amount thus withheld from the market being represented by *MM′*. At the price *M″P″*, however, an additional supply (*M′M″*) of the commodity would be forthcoming from sellers who were not tempted by the price *M′P′*. In general, the supply curve *SS′* represents the relations between price and the amount that will be supplied in a particular market and at a particular time.

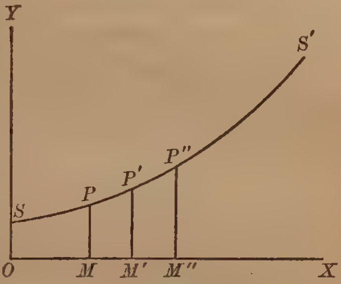

FIG. 4

The Determination of Price. — The foregoing discussion of the nature of demand and of supply makes it possible to advance another step in our analysis of the determination of price, by asking ourselves what will be the result of the simultaneous operation of the forces of demand and supply. This condition is represented graphically in Figure 5, where the demand curve and supply curve are combined in one diagram. If the curve *DD′* represents the

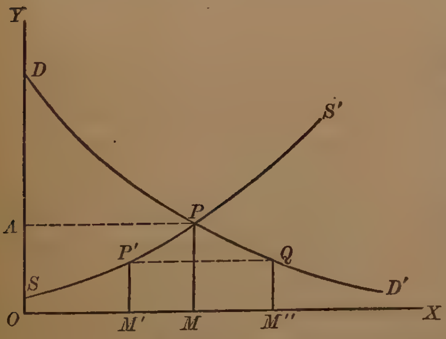

FIG. 5

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potential demand in a particular market at a particular time, and the curve SS' represents the potential supply, the price which would be fixed by the free working of competitive forces would be PM, located at the point where the two curves cross. At this point demand and supply are equal, both being represented by OM. It is impossible that the price should be fixed at any other point, $M'P'$, for example. For if $M''Q$ be drawn so as to equal $M'P'$, it will be evident that at this price OM'' units will be demanded, while only OM' units will be supplied. Most of the buyers, however, are willing to pay more than $M'P'$ if necessary, so that in order to secure their share they will bid the price up until the supply equals the demand. This is what John Stuart Mill meant when he said that "value always adjusts itself in such a manner that the demand is equal to the supply," — a statement which has often been misinterpreted, and consequently unjustifiably criticised.

Producers' Surplus. — Just as the area APD (Fig. 5) has sometimes been considered, not altogether accurately, to represent a "Consumers' Surplus" (of utility over costs), so the area APS has been considered to correspond to what has been called "Producers' Surplus" or "Sellers' Gains." This surplus should not be thought of as corresponding to the actual profits of the sellers; that is, as being in any way a surplus of value over and above the expenses of production. It cannot be too strongly emphasized that the analysis of demand and supply thus far presented relates only to the conditions existing in a particular market *at a particular time.* All that we can say is that when OM units are sold at the price of MP per unit, the total receipts of the sellers are represented by the rectangle $OMPA$; while the area $OMPS$ represents what they would have been willing to sell the same amount of goods for, had they not been able to get a larger return. There is, as we shall see, a relation between the prices of things and the expense of producing them, when a considerable period of time is taken into consideration. At any given time, however, sellers are mainly governed by the relative profitableness of selling at existing prices or waiting for higher ones. The only kind of surplus which the area APS represents is an intangible, hypothetical thing.

QUESTIONS

1. Is there such a thing as "intrinsic value"? What is usually meant when the expression is used?

2. How would you apply the concept of marginal utility to a non-divisible good, like a house?

3. Does the tendency of each individual to maintain the equilibrium of his margin of consumption result in the maximum satisfaction of his wants?

4. What relation is there between the amounts which a college student pays for room rent, for food, for clothing, for books, and for athletics?

5. Which of your customary purchases would you still make if prices were doubled? Which would you curtail? Which would you omit?

6. Illustrate the propositions relating to elasticity of demand (p. 28) by concrete examples.

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CHAPTER XII

VALUE AND PRICE (*Continued*)

SOME of the most important factors in the determination of exchange values are not revealed by an analysis of the conditions existing at a particular time. We have assumed, for example, an existing potential demand and an existing potential supply, and have shown how these result in the equilibrium of actual demand and supply at a certain price. An explanation of why potential demand and potential supply are as they are necessitates taking a considerable period of time into consideration. The demand side of this particular problem need not detain us. It has already been suggested that demand will change with changes in incomes, tastes, fashions, and the like. The effect of these influences is so obvious that it may be taken for granted. With reference to the other side of the problem, however, it has been pointed out that the potential supply of the present is limited by conditions set by past industry. The amounts of different kinds of consumption goods that are ready for present use depends upon the direction which the work of production has taken in the past. What, in the long run, is the relation between supply and value? To answer this question we shall have to push our analysis somewhat farther.

Normal Value.—The dominant motive that guides farmers and business men in their investments of labor and capital is the desire for money profits. By profits we mean in this connection the difference between the expense involved in producing goods and the money that can be obtained for them. If it were always an easy matter for business men to change their interests and their energies from one line of production to another, and if capital and labor could likewise be freely transferred from one undertaking to another, it is hard to see how profits in any one competitive business could be for any length of time much higher than in other competitive businesses. Managerial ability, labor, and capital would gravitate always toward those employments which promise the greatest profits. The effect would be a continual tendency toward equality of advantage in different lines of business. This does not mean necessarily an equality of profits as between individuals in any given line of business, for the amount of profits depends largely upon the skill and enterprise of the individual business man. In a state of free competition, with managerial ability as free in its selection of opportunities as we have assumed, the profits of any business would hardly be larger, for any period of time, than the business man could get as salary by working for others — for if working for others offered a greater return than assuming the risks of business for himself, he would naturally choose the salaried position, and *vice versa*. Purely competitive profits, under conditions of absolute "fluidity" of business ability, of labor, and of capital, would thus tend to adjust themselves according to the ability of the individual business man; that is, to equal what we shall later describe as the "wages of management." If we include the value of the business man's services among the expenses of production, we may, obviously, state the tendency which we have described as a tendency toward the equality of the prices received for the products of any particular business and the expenses of producing them.

The assumptions we have made do not, however, exactly correspond to the conditions of actual business. Managerial ability, labor, and capital are all specialized to a greater or less extent, so that they cannot be changed from one employment to another without loss of efficiency. But it is not necessary for the validity of our analysis that *all* managerial ability, *all* labor, and *all* capital should be fluid enough to change from industry to industry economically. There are always a certain number of business men who are anxiously watching for the most inviting business opportunities; there is always a certain amount of labor awaiting the most remunerative employment, and there is always a certain amount of money awaiting investment in those forms of capital goods which produce the greatest value. These facts are enough to give substantial truth to the statement that in any competitive industry the price of the commodity produced tends to equal the cost of producing it. When the price of bicycles was high, as compared with the expense of producing them, existing bicycle factories were extended and new ones were built. The supply of bicycles was thus so increased that they could not be sold except at a much lower price. On this account and because of the cessation of demand, the profits in the manufacture of bicycles became relatively low, and many former bicycle factories are now used for other purposes. If the excess of the price of wheat over the expense of producing it promises to be greater than the excess of the price of corn over the expense of producing it, farmers will raise less corn and more wheat, and the result will be higher prices for corn and lower prices for wheat.

On account of this tendency of prices to equal the expenses of production, the expense of producing a unit of a commodity is called its normal value. It must be clearly understood that normal values relate only to a tendency — not to the actual prices of the market.

Different Conditions of Supply. — The strength of the tendency of actual competitive values to equal normal values depends upon the length of the period of time that is taken into consideration. The longer the period of time, the larger will be the proportion of managerial ability, labor, and capital that can be transferred from one industry to another. To build and to equip new factories and to extend old ones takes time; the supply of skilled labor in any occupation can often be increased but slowly, for many trades involve an apprenticeship of three or more years. In the undertakings that are becoming less profitable, although capital specialized in the form of machines may not be useful for other purposes, yet such machines need not be replaced as they wear out; while a skilled laborer cannot take up another trade without loss of efficiency, yet the incoming supply of laborers may begin their apprenticeship in those occupations in which there is a greater demand for labor.

While the conditions of long-period supply are thus such as to result in a constant tendency toward the equalization of normal value and market value, this tendency may never work itself out completely. For market values themselves are constantly changing under the influence of changing demand. The goal toward which productive effort is working is a constantly shifting one. Moreover, the expense of production itself often depends upon the amount produced. The efforts of entrepreneurs to adjust production to prices result inevitably in a readjustment of the conditions that determine the expenses of production. Three forms of productive undertaking may be here distinguished: those in which increased production is accomplished with increasing, decreasing, or constant expense.

If transportation facilities and other controlling conditions remain constant, the amount of wheat raised in the United States cannot be substantially increased without resort to lands less well adapted to the production of wheat, or the more intensive cultivation of lands already in use. Either alternative means (as will be shown in a later chapter in more detail) the use of relatively more labor and capital in producing the additional wheat than was required for the wheat produced under the former conditions. This fact means that the production of wheat cannot be substantially increased except at an increased expense per bushel. When this condition of increasing expense is met with, — and it holds true generally in agriculture, — normal value is fixed by the expense of production of the most expensive part of the supply. That is, normal value tends to equal *marginal expense.* If the price of the product is not high enough to repay the cultivation of the poorest lands used, they will cease to be cultivated. If the price of the product is appreciably higher than the marginal expense, farmers will find it profitable to push cultivation still farther, up to the point where the new marginal expense equals the price.

In many manufacturing and commercial businesses, however, it is cheaper to produce on a large scale, so that an increase in amount produced means a relatively smaller expense per unit of product. In such cases a general increase in production means a decrease in the normal value of the product. At any definite time a given product will be produced by a number of different establishments of varying grades of efficiency, and if these are all to continue in operation, the price received for the product must be sufficient to cover the expenses of production of the least efficient of them. It is the supply coming from these least efficient establishments that adjusts itself most accurately to changes in price. From this point of view, we may say that in manufactures, as in agriculture, normal values equal marginal expenses. But this fact is not very significant, for as soon as we take a longer period of time into consideration, we recognize that the higher price which enables the marginal establishment to produce at all, also enables the better establishments to produce on a larger scale. The reduced expenses of production necessitate, through competition, a lowering of the price, and the less efficient establishments find themselves forced out by the very conditions that permitted them to produce at all. From the long-time point of view, it is minimum, rather than maximum, expenses of production that measure normal values in industries of decreasing expenses. There is by this process a continual elimination of the inefficient producers and a continual insistence upon higher standards of efficiency on the part of the superior producers. The minimum expenses of production to-day become the marginal expenses of production to-morrow.

The condition of decreasing expenses dominates in most of the great factory industries of the present.[1] Its effect is sometimes offset by the increased cost of raw material produced under conditions of increasing expenses. The diminution of expenses which accompanies an increase in the amount of the business is of special significance in railway transportation, and in a number of other monopolistic businesses. The telephone business, however, is alleged to be subject to conditions of increasing expenses. Some writers hold that the dominance of the condition of decreasing expenses in any business is enough to make it monopolistic in tendency.

In many hand industries, such as tailoring and cigar making, the expense of production per unit does not vary to any great

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[1] Some qualifications of this statement are suggested in the following section on "Constant and Variable Expenses."

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extent with the amount produced. Figures 1, 2, and 3 illustrate supply under the conditions of increasing, decreasing, and constant expenses, respectively:—

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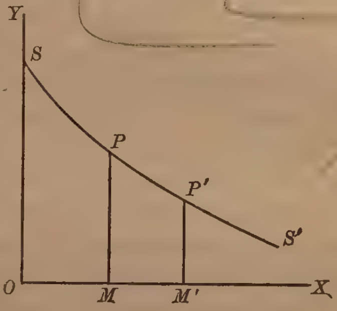

FIG. 1

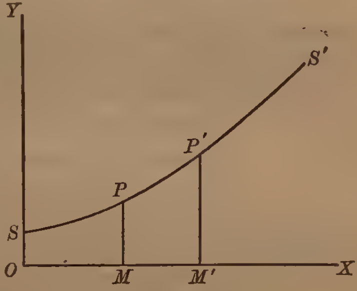

FIG. 2

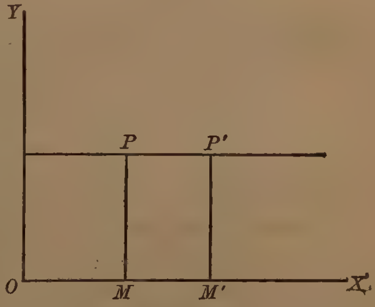

FIG. 3

These diagrams illustrate the relations between price and supply when a considerable period of time is taken into account and must be carefully distinguished from the supply curve described in the preceding chapter, which related only to the conditions of supply at a particular time. The "supply" illustrated in these long-period supply curves is about the same as the "potential supply" of the preceding chapter.

Constant and Variable Expenses.—There is no better illustration of the necessity of keeping definite periods of time in mind when discussing problems relating to valuation than that furnished by the problem of the apportionment of specific expenses of production to particular units of products. In almost any industrial establishment, any increase in product will be attended by some specific increase in expenses: more raw material and more labor will be used, possibly more power; although the increased expenses for labor and power may not be proportionate to the increase in production. Such expenses are called *variable expenses*, and are to be contrasted with *constant expenses,* which remain approximately the same, no matter what the amount produced is. The interest on the capital invested in the factory building and its equipment of machinery is a constant expense; the expense of management and general office expenses will be increased but slightly by an increase in the annual product of an establishment. It is often assumed that wherever only a part of the expenses varies with the amount produced, the industry is *ipso facto* one of decreasing expenses. Whether this assumption holds true or not depends on the length of the period of time we take into consideration. It is true that factories are built with a certain maximum capacity, and until that maximum capacity is utilized, production may be increased without a proportionate increase in expenditure. When the maximum is reached, however, more equipment, and often more buildings, will be needed before there can be a further increase in product. There is often a certain most efficient size of plant; an increase in business beyond the capacity of the most efficient size of plant necessitates either a curtailing of the business or a duplication of the plant.

When business conditions are such as to warrant temporarily pushing the output of a plant beyond its normal capacity, the result usually is, as every manufacturer knows, that this increased output is produced at relatively increased expenses of production. Many seemingly constant expenditures (like interest on the cost of the plant) are variable in the long run. Such expenditures increase, but only at considerable intervals of time. A supply curve corresponding to the conditions of production in such a business might be something like Figure 4.

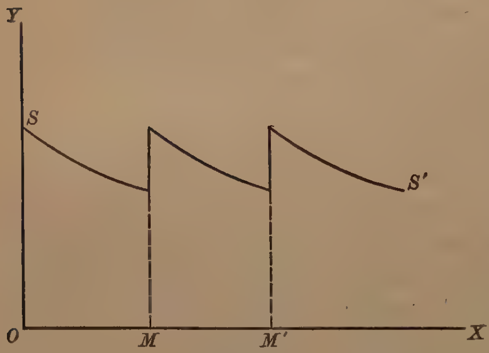

FIG. 4

When the product reaches *OM* units, and again when it reaches *OM'* units, fresh investments of large amounts of capital are necessary. From the long-time point of view, such a business might very possibly be one of approximately constant expenses; although of course the other economies of large-scale production may be sufficient to bring them under the rule of decreasing expenses. The problem which the economist has to deal with here is analogous to the difficult one which the accountant has to face in factory cost keeping. Careful analysis of the relations of constant and variable expenses in different modern businesses must precede any broad generalization.

Joint Expenses of Production. — When the production of one commodity is inevitably accompanied by the production of one or more other commodities, it is often impossible to assign a definite part of the total expense of production to any one of the commodities. It is obviously impossible to separate the expenses of producing tenderloin steaks from the expenses of producing soup bones, or either one of these from the expenses of producing hides. Mutton and wool, cotton and cotton seed, coal gas and coke, are familiar examples of commodities produced under conditions of joint expense. Modern methods for the utilization of industrial by-products have greatly increased the list of commodities produced under conditions of joint expense. Such commodities have only a collective normal value, which is equal to the joint expenses of production. The potential supply is governed by the total price which the producer thinks he can get for the joint products, as compared with the joint expenses of producing them. The division of the total price into specific prices for the separate commodities is determined by the potential supply and by the conditions of demand that exist at any one time for the separate products.

The Surplus of Bargaining. — Demand and supply do not always fix price at a definite point. The price of horses of any given grade, for example, is fixed only approximately by market conditions. In the sale of a horse there is room for considerable latitude of opinion as to the price that should be paid. If the lowest price that the seller will take is considerably below the highest price that the buyer will give, just where between these limits the actual price will be finally fixed will depend upon the relative skill at bargaining of the seller and buyer. In the case of a horse trade, this opportunity for the "higgling of the market" has become proverbial, but in many other kinds of exchanges the efficient bargainer has an opportunity to get for himself a surplus above his minimum selling price, or below his minimum buying price. Real estate transactions furnish a good example. In the case of the great commodities of the world market, like wheat, cotton, and iron, the price is set so accurately by market conditions that the gains of bargaining are relatively small. *In general, the wider the market, the more general the use of the commodity, the greater the ease with which the commodity can be sorted into standard grades (as in the case of wheat and cotton), the more accurately will competitive forces fix a definite price. Goods which cannot be standardized, each unit of which possesses some unique qualities, give most scope for the variations in the valuations of individual buyers and sellers.* In such cases supply and demand do not fix a price point, but only certain limits within which the price must fall. The widening of the market, however, and the increasing standardization of commodities — an effect of machine production — are bringing a larger and larger proportion of goods into the field where the uniform market valuations dominate.

Non-reproducible Goods. — Some economic writers have made a special class of such goods as great works of art. These are absolutely unique, in that no copy can have anything like the value of the original. The price of such non-reproducible goods has an upper limit fixed by the highest subjective valuation set upon it by any possible buyer. The lower limit will be either the seller's own subjective valuation, or the second highest valuation set by any competing buyer, according as one or the other of these two is the higher. Between the upper and lower limit the exact fixing of the price is a matter of pure bargaining. Such cases should not be confused with ordinary monopoly price, as has been done by some writers. The products of almost all the industrial handicrafts, as well as the products of the avowedly artistic pursuits, possess a non-reproducible element of individuality, that removes them to a greater or less extent from the operations of the law of normal value. A commodity may possess this quality of uniqueness to such an extent that it is not affected at ~~all by the~~ forces determining the value of the general class of goods to which it belongs, and in this case its owner may be said to have a monopoly of it. But it is better to look upon the valuations of such non-reproducible goods as determined by individual valuations and the process of bargaining. The "normal" price of such goods is simply the highest price that can be got for them — a statement which does not hold true of most monopoly goods. For monopoly goods are not necessarily unique or non-reproducible. They differ from ordinary competitive goods, however, in that they cannot be reproduced except by the monopolist.

Monopoly Values. — The subject of monopoly price will be discussed in connection with an analysis of the general subject of monopoly in a later chapter. It is sufficient in this connection to note that the monopolist gets a special power over the price of his product through his ability to control the supply of it. The monopolist, like any other seller, seeks to get the price that yields the greatest net returns, but unlike the competitive seller, he is not hampered by an inability to fix the price very much above the cost of production.

Retail Prices. — The retail prices paid by the individual consumer do not always respond to the variations in wholesale prices brought about by changes in supply and demand. There are sometimes tacit or explicit local price agreements between local merchants, which apply even to competitively produced goods. Some retailers consistently sell a few kinds of goods at less than cost to attract custom for the goods on which they may make a profit. Merchants who make a specialty of a high class of goods, and thus cater to a wealthy clientele, are apt to exact higher prices for ordinary goods than do those merchants who have to deal with a poorer class of customers. Custom has more effect on retail than on wholesale prices. The prices of various articles sold as "men's furnishing goods" form a good example of the influence of custom. Retail prices are also governed by the value of the coins that are in general use, and are generally expressed in round numbers. In the long run, demand and supply govern retail prices, but they do not set a definite price point so accurately as they do in the case of wholesale prices.

Public Authority and Value. — In the middle ages there was considerable speculation by theologians and legists about the subject of "just price" — the value at which things ought to exchange for other things. This idea denotes an important difference between the mediæval and modern concept of value. Professor Ashley has put it clearly in these words: "With Aquinas, the greatest of the mediæval schoolmen, it [value] was something objective; something outside of the will of the individual purchaser or seller; something attached to the thing itself, existing whether he liked it or not, and that he ought to recognize. And as experience showed that individuals could not be trusted thus to admit the real value of things, it followed that it was the duty of the proper authorities of state, town, or gild to step in and determine it, and what the just and reasonable price really was." This "just and reasonable price" was very often thought to be that price which would afford a reasonable compensation for the labor of the producer. When in more modern times theological speculations began to yield precedence to inquiries into "natural laws," the idea of just price was supplanted by the idea of "natural price." Sometimes this was interpreted as determined by the value of the labor put into a commodity (this was the dominant idea during the eighteenth century), but the growth of capitalistic production necessitated the recognition of the other elements in the expense of producing a commodity as part of its natural value. Modern economic science, as we have seen, applied the term "normal value" to the expense of producing a thing, but interprets it only as an important factor controlling the long-period fluctuations of competitive exchange value. The adjective "natural," with its misleading implications, has been abandoned. Yet the competitive system is to-day so thoroughly accepted as the "natural" economic order, that there is, as we have previously noted, a deep-seated conviction that normal competitive prices (measured by the expenses of production) are natural and just prices. This conviction is, however, brought face to face with the fact of the growth of a large industrial field in which monopoly, rather than competition, rules. The question of just price is again a live issue — as it was before the growth of the competitive system. Public authority is frequently invoked to insure that the prices fixed by holders of municipal franchises and other monopolists are just and reasonable. The chief fundamental test which our courts are able to apply to the reasonableness of any particular price is its conformity to what the price would have been under competitive conditions. Thus it is often asked if a particular monopoly charge gives a more than normal return upon the capital invested. The determination of what the expense of producing a particular commodity or service really is, is often a difficult, or even impossible, task (the distinction between constant and variable expenses being frequently a stumbling-block), but, given the general acceptance of the competitive system, it is hard to see what other standard could be used. Moreover, the general consensus of recent court decisions is that the Fifth and Fourteenth Amendments to the Federal Constitution, prohibiting the taking of property without due process of law, prevent federal and state governments from going farther than this in the regulation of monopoly charges.[1] And even this power is not conceded, except in the case of businesses affected with a distinct public interest, such as those conducted by so-called public-service corporations. In fixing prices for its own services, such as postal charges, the government is controlled by other considerations. These will be discussed in the chapters on public finance.

Imputed Value. —The only things to which market valuations actually apply are the specific units of goods that are actually bought and sold. We are accustomed, however, to impute these market values to all other existing goods of the same kinds. When wheat is sixty cents a bushel, the only bushels of wheat actually valued by the market at that price are the ones actually sold at that price. Yet we impute or ascribe the same value to all other bushels of the potential supply of wheat in the same market. It is obvious that all of the potential supply could not be sold at once except at a very much lower price. Any seller could, however, add a small amount to the supply, without materially affecting the price. Exchange value, as a concrete fact, emerges only in the actual process of exchange. The value imputed to goods not in the actual process of exchange is a hypothetical value: the price which could be obtained for any particular unit of a good under existing market conditions. This concept of imputed value in economics is in some ways like the concept of potential energy in physics. A body of a given mass raised a certain distance above the earth has a certain amount of potential energy, which, if the body be allowed to fall, will be realized in an equivalent amount of actual energy. To make the analogy between potential energy and potential value complete, however, one would not only have to conceive of the force of gravitation as continually fluctuating, but also to imagine that the amount of actual energy realized would be relatively diminished according to the mass of the number of the bodies let fall at any particular time.

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[1] It is the view of some courts that not only concrete physical objects, but also the "franchise value" that has resulted from the ability of a company to charge monopoly prices in the past must be counted as "property" in the meaning of the Constitution. So far as this view governs the public regulation of monopoly prices, it is impossible to reduce them to a competitive standard. It should be possible, however, in any particular case, to prevent any increase in this acquired franchise value; that is, to subject public-service monopolies to competitive standards so far as the *increase* of their earnings is concerned.

Notwithstanding the hypothetical nature of this imputed value, it is often treated as though it were a real thing. Statistical attempts to state the wealth of a nation in terms of dollars and cents are only estimates of the sums of these potential values, and involve the hypothesis stated above. A merchant's inventory of his stock in trade is often accompanied by an estimate of its potential value. Whether this value will be realized or not depends upon the constancy of business conditions, the caprices of fashion, and whether it can be sold in the regular course of trade or whether it has to be disposed of at a forced sale. A good many kinds of consumption goods, such as household furniture, are not customarily thought of by the owner in terms of exchange value. It is often necessary for purposes of taxation to ascribe value to them, but it should be remembered that this imputed value is purely hypothetical.

The Valuation of Production Goods.—In our analysis of exchange value it has been assumed that the commodities valued were wanted by consumers for the satisfaction of their wants; that is, that they were consumption goods. It is possible to say that producers' goods — capital and land — have a marginal utility for the producers, which measures the importance attached to the possession of them. While one could thus, with substantial accuracy, include producers' goods in the scope of the foregoing analysis, there is a more instructive way of approaching the problem of the valuation of land and capital. Consumption goods have value because they satisfy human wants; that is, they yield an income of satisfactions, while production goods are valued because they have the power of gaining a money income for the owner. Just as the value of consumers' goods varies with the intensity of the wants they satisfy, so the value of producers' goods varies with their power to yield a money income. The valuation of producers' goods will, accordingly, be discussed in the chapters on the rent of land and interest.

Other Theories of Value.—The older economists used to emphasize the relation between the value of a thing and the amount or the expense of the labor spent in producing it, — a relation much closer under the old methods of hand production than it is at present. The development of a systematic labor theory of value was, however, the work of Karl Marx, the founder of modern "scientific" socialism. This theory is, in essence, that labor produces all value and that the interest on capital and the rent of land are deductions from the real wages of labor — deductions that are made possible only by the existence of the system of private property in producers' goods. It is so obvious that things do not exchange to-day in proportion to the amount of labor involved in producing them, that to point this out in detail, as some economists have done, is unnecessary. Karl Marx really meant that labor costs constitute the "natural" values of things, or the ratios at which they *ought* to exchange. But the only "natural" values that can be recognized from the modern scientific point of view are the values that really exist — the actual values of the market. Nor can we say that things *ought* to exchange in proportion to their labor costs, without begging the whole question in favor of the abolition of private property in land and capital. Moreover, it will be shown later that rent and interest would not be eliminated, although they might be changed in form, by a change from private to common ownership of producers' goods. Although the labor theory of value is still held by many followers of Marx, its place in the creed of scientific socialism is diminishing in importance.

The relation between value and the expenses of production has sometimes been stated in such a way as to lead to the inference that cost of production is the cause of value. The cost of production theory of value, when so stated, is open to much the same objections as the labor theory. Suppose I perfect a machine at the expense of ten thousand dollars which will blow soap bubbles at the rate of a thousand an hour. Will it be worth ten thousand dollars? Certainly not; but why not? The theory of costs will not explain it. To say that the labor and materials have not been wisely used is simply to say that the machine has no value, which is just what we are trying to explain. As a fact, it is not worth ten thousand dollars simply because no one is willing to give ten thousand dollars for it. The expenses of production do not create value, but there is a sense in which value is the cause of the expenses of production. That is, men think it worth while to expend money in producing things because they think that the products will have value enough to recompense them for the expenses of production.

Many of the economists who have written in the past about the subject of value took the facts of demand for granted, and devoted most of their treatment of the subject to an examination of the relation between value and the expenses of production. This was in part an expression of a general tendency to regard the production of wealth as something to be desired for its own sake; the fact that the satisfaction of human wants is the real goal of most economic efforts being underemphasized. In more recent years economic writers have developed the analysis of human wants; the fact that utility in the economic sense is not utility in general, but the utility of a particular unit of a commodity, being the most significant point in this new analysis. Some writers have even gone so far as to take the facts of supply for granted, and to assume that value is explained when marginal utility is described. Marginal utility is, as we have seen, the equivalent of *subjective value* — the importance an individual attaches to the possession of a particular unit of a commodity. To say that the marginal utility of an object determines its exchange value is, however, to argue in a circle, for the marginal utility of a commodity to me depends on the intensity of my wants and the extent to which they are satisfied. But the extent to which our wants are satisfied depends very largely upon the difficulty or expense of acquiring the things that satisfy them. In this sense value determines marginal utility. The concept of marginal utility does, however, aid us in understanding the causes of exchange value, because it forms a bridge by which we can pass from the definite money units in which exchange values are measured to the indefinite, subjective units of satisfaction in which we measure the utility of goods.

As a determining cause of value, utility has a logical priority over scarcity, in the sense that demand is usually the cause of supply. Yet in the analysis of the actual valuation process we have to recognize that utility and scarcity, demand and supply, are forces operating simultaneously, neither of which can be neglected without obscuring the fundamental facts of the market.

QUESTIONS

1. Is there any relation between the price of a lead pencil and the expense of producing it?

2. What elements of a farmer's expenses are "constant"? What are "variable"?

3. What different possible standards of just price can you suggest?

4. Draw diagrams illustrating the fixing of normal value under different conditions of long-period supply, the conditions of demand being assumed to be constant.

5. What different possible meanings can be attached to the expression "natural value"?

6. Discuss the following statement:—

"The fact is that labor once spent has no influence on the future value of any article; it is lost and gone forever. In commerce bygones are forever bygones; and we are always starting clear at each moment, judging the value of things with a view to future utility." Jevons, *Theory of Political Economy*, p. 164.

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CHAPTER XIII

MONOPOLY

The Idea of Monopoly. — One of the economic terms most frequently used nowadays is monopoly, and at the same time it is one of those terms which are peculiarly vague and ill-defined in popular discussion. Even in law and economics, contradictory meanings have been attached to the term, although recently there has been a marked clarification of thought both on the part of economists and jurists. This has been a natural result of the discussion of the subject; and this discussion in turn has been a necessary outcome of an economic situation in which monopoly has played and is still playing a large rôle. While there has been confusion of thought with respect to monopoly, all have agreed that something to be called monopoly has existed, and that it has been the cause of perplexing scientific and practical problems.

In economics, as in life, categories shade off into each other, and at the boundaries discrimination is difficult. It is best, therefore, to find highly developed, plainly marked types to furnish us the subject-matter for definition and to compare one type with another. This is an especially desirable mode of procedure in the present case, because the term "monopoly" at once suggests the term "competition," with which it is inevitably contrasted. When monopoly exists, competition is thought of as absent. A state of full and free competition, on the other hand, is incompatible with monopoly.

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Competition means a market with rival sellers and buyers, and prices determined, on the one hand, by efforts of sellers, acting independently of one another, to dispose of commodities and services, and on the other hand, by efforts of purchasers, acting independently of one another, to secure commodities and services. Competition means goods and services freely produced;

in other words, without control by combination. We have seen the forces that under competition limit producers and purchasers, and thus determine value.

Monopoly, as the term contrasted with competition, means combination and unified action, signifying restraint on the free offering of commodities and services by rival sellers and on the free purchase of these commodities and services by rivals who desire to secure them. The word "monopoly" itself means a condition in which there is a single seller and by extension a single purchaser, and signifies unity in management of some kind of business in some essential particular.

The particular in which unity is secured in the case of monopoly may be in production, it may be in sales, it may be in purchases; or it may be in any two or all three of these particulars. This use of the term "monopoly" gives us a clear scientific concept which is workable; and on its basis we may then formulate this definition of monopoly: *Monopoly means that substantial unity of action on the part of one or more persons engaged in some kind of business which gives exclusive control, more particularly, although not solely, with respect to price.*

A few points in our definition require comment. Price is essential, and must be regarded as the fundamental test of monopoly, even if it is obvious that price formation and price control do not exhaust monopoly, since its import reaches beyond price. The other things than price control which monopoly carries with it flow from such control and are not secure without it. A certain unity of action may be obtained without the establishment of monopoly, since it does not give rise to monopoly until the power to control price is secured.

It is possible that monopoly may not prevent price from falling below cost, and such a condition of price is quite compatible with the definition given. The advantage of unified action may be that loss is diminished. Sometimes a monopoly will give, perhaps, simply normal returns; sometimes there is loss, as in the case of an unprofitable copyrighted book; sometimes it might happen that the monopoly price would be exactly the same as the competitive price; sometimes it may go, and generally will go, above the competitive price,[1] although there might be other gains than those resulting from higher price.

The precise definition given here of monopoly appears in the main to be in accordance with the best English usage, and also to be in harmony with the meaning given to the corresponding word in other modern languages by those who use these languages with discrimination. If we search our dictionaries for the meanings of monopoly, it will be seen that there runs through them all the notion of exclusiveness or unity as the dominating thought, as the essential thing for which the mind is more or less successfully struggling and the thought about which other things are grouped.

When we search our law books and judicial utterances on the subject of monopoly, unsatisfactory as they have been to all interests involved and contradictory to one another in their interpretations in various particulars, we find, nevertheless, a sound tendency to emphasize unified control of business as an essential characteristic of monopoly. Lord Coke, in the seventeenth century, laid emphasis upon the exclusive nature of monopoly, when he said that it consisted of power granted "to any person or persons, bodies politic or corporate, for the *sole* buying, selling, making, working, or using of anything, whereby any person or persons, bodies politic or corporate, are sought to be restrained of any freedom or liberty that they had before, or hindered in their lawful trade."[2] Blackstone, in his *Commentaries on the Laws of England*, gave almost precisely the same definition in the following century. Recent American decisions lay emphasis on exclusiveness as a test of monopoly.

The Idea of Monopoly and Industrial Evolution. — But the meanings of economic categories change with industrial evolution. Even such terms as freedom and liberty have to be newly interpreted with every new stage and even with every marked phase in a stage of economic life. Naturally monopoly has acquired a new significance, requiring new interpretation, which even courts are gradually learning to give. The earlier legal definitions made monopoly proceed from an express grant of public authority. Lord Coke says: " A monopoly is an institution or allowance by the king, by his grant, commission, or otherwise;" and Blackstone uses similar language in defining monopoly " as a license or privilege allowed by the king."

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[1] This point is discussed later in the present chapter, *vide* p. 206.

[2] Coke, 3 Institutes, 181. Quoted by C. F. Beach, Sr., in his *Monopolies and Industrial Trusts*, § 5.

Historically, this source of monopoly power is of paramount importance. From early times, English sovereigns granted monopolies either for public or private reasons, and they became a grievous burden. Queen Elizabeth, in particular, sinned in this respect, regarding the right to grant monopolies as " one of the fairest flowers " in her prerogative, and it was not long before the citizen found himself restrained and shut in on every side by a privileged class of monopolists.[1]

Our forefathers were so deeply impressed with the evils which they had suffered at the hands of the monopolists in old England that in the Bills of Rights and elsewhere in the early constitutions of our commonwealths they frequently inserted severe denunciations of monopolies, and prohibited them unqualifiedly; and these declarations and prohibitions still last in several states. Two illustrations will suffice. We read the following utterance in Article 39 of the Declaration of Rights which forms part of the constitution of Maryland: "Monopolies are odious, contrary to the spirit of a free government and the principles of commerce, and ought not to be suffered." And the people of Texas still cherish Section 26 of Article I of their constitution, which among other things declares that " monopolies are contrary to the genius of a free government, and shall never be allowed."

While the spirit of monopoly is as old as man, there was until this century comparatively little opportunity for monopoly on any large scale save as it proceeded from express grants of public authority. These grants were sometimes made for public purposes, and sometimes they proceeded from mere abuse of monarchical power, and were given to favorites of royalty. We cannot now stop to discuss their merits and demerits, but call attention to the fact that they became odious, and were prohibited both in England and in this country, exception being made of patents, copyrights, and trade-marks. At the present time, however, monopolies proceed from the nature of industrial society, and are of far greater significance in our economic and political life than ever before. The really serious monopolies of our day are far more subtle, and have for the most part grown up outside of the law, and even in spite of the law.

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[1] For a scholarly treatment of Elizabethan monopolies, see *English Patents of Monopoly*, by W. H. Price.

And this has at last received full recognition in an utterance of the Supreme Court of the United States in which the idea of monopoly, as stated in our definition, is reproduced;[1] and thus, fortunately, law and economics are brought into harmony, as they always should be.

Complete and Partial Monopolies. — We have taken a perfect type of monopoly to furnish us with our definition; but there are imperfect types, or *incomplete monopolies*, as well as *complete monopolies. We have a partial monopoly where there is a unified control over a considerable portion of the industrial field, but not over a sufficient portion to give complete domination of the whole field.* It can easily be understood that if 90 per cent of a given business, but no smaller percentage, would afford control over the whole business, 80 per cent, while it would not be sufficient for domination, might carry with it an advantage to the person or persons enjoying unified control over the 80 per cent, yielding an excess above competitive returns which we may properly designate as one sort of surplus value. Businesses must often be in this position, and a monopoly may be obliged to go through several stages of partial monopoly before it reaches a position where it can exercise unified control over the entire business. After all, it is a question of degree of control; and nearly, if not quite all, economic distinctions are matters of degree.

But we must distinguish sharply between a condition of monopoly and other conditions, if we are to think clearly and accurately. One thing which does not yield monopoly is mere limitation of supply, and it is strange that even an economist of the ability of John Stuart Mill should have found the essential feature of monopoly in this limitation; for this at once makes monopoly cover the entire field of economic activity, inasmuch as economic activity is for the acquisition of valuable things, and things lack value whenever their supply is adequate for the satisfaction of all wants. It is only things limited in proportion to human desires that have value.

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[1] McKenna, J., in National Cotton Oil Co. *v.* Texas, 197 U. S. 129.

Nor may we say that a valuable thing is monopolized because its supply is limited and also graded in quality. Land exists in quantities to which physical nature has assigned limits, and the supply of land exists in grades varying in fertility and desirability of situation, and as a consequence of this gradation we have the rent of land. Land is not, however, a monopoly, and it is misleading to speak of it as a natural monopoly. Nowhere do we find monopoly either in the ownership or in the cultivation of land, but everywhere competition — competition among unequals, to be sure, but still competition.

Land rent is a differential gain, a gain due to the superiority of the land owned by rent receivers over that cultivated by those who are making use of land which affords nothing beyond returns to labor and to capital. Now we must distinguish between the broad concept of differential gains enjoyed by those in competitive pursuits, and the monopolistic gains which are based on the absence of competition.

Just as sharply must we distinguish between competitive businesses of large magnitude and monopolies. Department stores in no city in the world enjoy monopolies, but are subjected to the steady, permanent pressure of competition. There are those who call every business operating on a vast scale monopoly, and would put in the same economic category a gasworks without a competitor and a huge retail dry-goods establishment with rivals at every hand, ready to seize every opportunity for an advantage over it, and certain to ruin it if its managers relax their intense activity and watchfulness.

Classification and Causes of Monopolies. — As our first step in the treatment is the formulation of the idea of monopoly, our second must be the classification of monopolies with an examination of their causes. Comparatively little can be said about monopolies that is applicable to all monopolistic businesses. Here, as everywhere else in economics, we need analysis.

Many classifications of monopolies have been given, but we must here confine ourselves to the three which seem of the greatest importance to the general student.

First Classification

A. Public Monopolies.
B. Private Monopolies.[1]
C. Quasi-public Monopolies.

Public Monopolies are those businesses which are owned and operated by some political unit, and this political unit is the direct and immediate beneficiary; in other words, to this political unit in the first place flow all the benefits of monopoly. *A Private Monopoly, on the other hand, is a monopoly owned and operated by a private person;* it may be a natural person, — that is, a human being, — or some association of natural persons, as a partnership, or it may be a private corporation. In this case the first and immediate beneficiary of the benefits of the property and business is the private person, although large benefits may flow to the general public.

It is believed that this great fundamental distinction between public and private monopolies is essential both to clear thinking and to sound public policy. Whoever undertakes to tell us what is true about monopolies, and what is wise for society to do with respect to monopolies, must make it plain whether he is talking about public monopolies or whether he is discussing private monopolies. We may also have an intermediate class designated as Quasi-public Monopolies. An illustration is afforded by state-owned railways operated by private corporations; although practically, in the United States, these differ in their management little from the privately owned railways.

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[1] In our classifications the coördinate classes will be indicated by the same letters or marks. The capital letters will indicate the chief classes; the Roman numerals, classes subordinate to them; and the Arabic, classes subordinate to those indicated by Roman numerals, and so on.

Second Classification. — The second classification of monopolies is made with reference to the source of monopoly power, and is based upon a different principle of classification, so that this second classification will cut across the first. We have again two main classes, and these are: *A*. Social Monopolies; *B*. Natural Monopolies. These are further classified as follows: —

A. Social Monopolies.
    I. General welfare monopolies.
        1. Patents.
        2. Copyrights.
        3. Trade-marks.
        4. Public consumption monopolies.
        5. Fiscal monopolies.
    II. Special privilege monopolies.
        1. Those based on public favoritism.
        2. Those based on private favoritism.
B. Natural Monopolies.
    I. Those arising from limitation of supply of raw material.
    II. Those arising from peculiar properties inherent in the business.
    III. Those arising from secrecy.

Social Monopolies. — Businesses are social monopolies *when they are made monopolies not by their own inherent properties, but either by legislative enactment or by forming so close a connection with great natural monopolies that they partake of the nature of the latter.* As already stated, in old times kings and queens frequently granted exclusive business privileges to favored persons, and permitted no one except those named to engage in such undertakings. Such monopolies, however, became so odious that sovereigns were compelled to cease granting them. Governments still create exclusive privileges by *patent* and *copyright* laws, but they do so in behalf of the general public. Authors and inventors are given exclusive rights over their productions for a limited period. These monopolies have justified themselves through the stimulus which they have given to invention and authorship.

The *trade-mark* is a legal monopoly similar to the patent and the copyright. In connection with lavish advertising, trade-marks in recent days have been made the basis of enormous profits.[1]

Public consumption monopolies and *fiscal* monopolies call for a word of special comment. They are to be distinguished the one from the other only by the object which the government has in view in establishing them. If the government manages for itself or grants to another a monopoly of the liquor traffic with the object of regulating the consumption, the monopoly is a public consumption monopoly. If, on the other hand, the chief object is not regulation, but income, the monopoly is a fiscal one. Often the two objects are so blended that it is difficult or impossible to say to which class the resulting monopoly belongs.

Our classification names two kinds of special privilege monopolies. Those monopolies which are due to special tariff advantages or to other legislation are rightly said to be *based on public favoritism*. The other class of special privilege monopolies consists of those which grow up through special favors granted by other monopolies, especially natural monopolies, such as railways.

Natural Monopolies. — Natural monopolies are *those which depend for their existence on natural forces as distinguished from social arrangements*. They grow up independently of man's will and desire, and sometimes even in direct opposition to it. The words which we have used in our classification will sufficiently explain the different sources from which they arise. By far the most important of all monopolies are natural monopolies of the second class, chief among which are the following: wagon roads and streets, canals, docks, bridges and ferries, waterways, harbors, lighthouses, railways, telegraphs, telephones, the post office, electric lighting, waterworks, gas works, street railways of all kinds. *Whenever there is a decided increment in gain resulting from combination, we have a tendency to monopoly which will overcome all obstacles. This increment of gain, which is the cause of monopoly, is always present in businesses that occupy peculiarly favorable spots or lines of land, and that furnish services or commodities which must be used in connection with the plant.* This may be said to be the law of natural monopolies.

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[1] The full treatment of trade-marks involves theoretical points which would necessitate a discussion too lengthy for the present treatise. They are used largely in competitive businesses, and help to establish what is termed good-will. They are an aid to the shrewd and capable in the general effort to escape what may be designated as the "dead level" of competition. They are a monopoly not in the sense of giving exclusive control of one sort of business, but in the strictly legal sense that no one else may use them. A clever device, coupled with excellence and advertising, may have very high value. The purchaser of oysters, for example, may feel that when he buys oysters of a particular "brand" (trade-mark), he is getting oysters, plus something else; or, in other words, not merely oysters such as others sell, but a peculiar excellence which can nowhere else surely be had. It is merely this "plus something else" that is a monopoly. Great importance is attached thus to "establishing a brand."

Many economists believe that combination and production on the largest possible scale give a decided increment in gain, and thus produce monopolies to be designated as "capitalistic monopolies." The question really turns upon the degree of growth of a business unit which adds to the rate of gain; and the position is taken in this book that in most kinds of business the point of maximum efficiency is reached long before the point of monopoly is reached.

One or two very cogent reasons may, however, be stated. An exhaustive study of the cases cited in support of the alleged tendency to monopoly inherent in large capital has failed to reveal a single one in which the monopoly did not enjoy one or many of those monopoly advantages which we have already mentioned and explained. Moreover, many cases in which the possession of large capital seemed on the surface to be a dominating influence, have been cases in which the monopoly was so short-lived as to furnish little support to the argument of those who cited them. After all, whatever may be the advantage conferred by large capital, we must remember that capital is so plentiful that one gigantic plant can always find a rival whenever a slight margin of profit invites its establishment.

Our conclusion, then, may be stated as follows: There is a great and growing field of industry in which competition is not natural or permanently possible, for reasons explained in the text; there is another field within which monopoly does not and cannot exist, and within which social monopoly is unlikely to arise.

Third Classification

A. Local Monopolies

These are monopolies extending over a relatively small area. The gas supply of any city is an illustration. There are various monopolies which are confined to a single locality. Then there are temporary local monopolies which, under peculiar exigencies, may arise. Two young men in Chicago a few winters ago cornered the market on eggs, and made fifteen thousand dollars out of the operation. The weather was so cold that eggs could not be shipped to the city, and for a few days these speculators had a monopoly.

B. National Monopolies

C. International or Universal Monopolies

There have been various attempts to secure universal monopoly, of which the copper monopoly of 1889 affords an illustration.

These are more or less arbitrary divisions, because a protective tariff may enable a monopoly to exist in one country when the same article or service is not monopolized in another country. There are attempts to establish monopolies beyond the nation, but how large will be the number of cases in which success will be achieved, remains to be seen. There is no doubt that the oil companies of the United States and Russia are endeavoring to establish an international and even a world monopoly.

The *area of monopoly* is a topic that in an extended treatise would require an elaborate treatment, for it has a significance which has as yet not been anywhere adequately presented. We can narrow down the area of monopoly until nearly every producer of goods or seller of services has a monopoly. A may be the only seller of shoes on a particular street of his city or in a particular block or building on his street. No one is especially disturbed or inconvenienced by a monopoly of so limited an area. In general, it may be said that, —

The larger the area, other things being equal, the more significant is the monopoly.

Monopoly Price. — Price in general depends upon marginal utility, and that depends upon the intensity of desire and upon the difficulty or ease of obtaining goods or services for the satisfaction of desire. If payment is made in money or in money instruments, price depends on the relative abundance of the supply of money and its instruments.[1] We see that price, then, depends upon limitation of supply in all cases, because it is the limitation of supply which gives us the utility of a particular concrete good, or our marginal utility. As the supply increases, the desires satisfied are of a lower and lower order until the point of satiety is reached, where all desires are satisfied and where value entirely disappears.

We now reach the chief peculiarity of monopoly price, which is found in the power of the monopolist over supply. The very concept of a unified control over business means power to control and limit supply. Supply is limited by the monopolist at that point where he gets the greatest returns, and if he receives surplus returns, they are due to the fact that he is in a position to compel men to forego satisfaction.

Under competition in the case of freely reproducible goods, supply is limited by cost of production. If the cost of production were nothing, there would be no limit to supply until all wants were satisfied. Competition in its very nature means that supply is not within the control of a single producer; and this fact gives us the protection that competition affords to society; and it is on this account that the courts regard competition as one of the main pillars of our present social order.

Now as the supply is not determined as under competition by the cost of production, it is determined by the desire of the monopolist to secure the maximum of revenue possible in the existing state of demand. In other words, the monopolist, freed from competition, and governed only by demand, is able to adjust supply to demand in such a way that the price will stand at the point of *highest net return*. In determining what price shall be fixed and what quantity supplied, — in other words, what is the point of highest net returns, — the monopolist consciously or unconsciously proceeds according to the following principles: —

1. He realizes that, other things being equal, every increase of his monopolized product will result in lowering its price, while every decrease in the supply will result in a higher price.

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[1] And abundance of money will depend upon marginal cost of production of the precious metals. This subject is treated elsewhere, as also the general subject of price, which is here presented only in abbreviated form for present purposes.

2. Of the expenses of production there are some that in a well-organized business vary roughly in proportion to variation in the supply. It will frequently happen that if the product is doubled, the cost of raw material will be about doubled. Such expenses may be called *variable expenses*.

3. Other expenses, within the limits of maximum efficiency, remain more nearly the same, no matter what may be the amount of the product. These, called the *fixed or constant expenses*, include the cost of plant, salary of superintendent, interest on bonds, etc.

It follows from the above principles that the monopolist, in a case of this kind, since he is seeking the maximum net revenue from his business, will pay little attention to fixed charges in establishing the price of the product, but will consider chiefly the variable expenses in connection with the probable demand for his goods at various points.[1]

An Illustration. — We may illustrate by an example the operation of these principles. The following table shows in parallel columns the number of sales of a monopolized good at different prices; the total resultant earnings; the variable expenses; the fixed expenses; the total expenses; and finally, the net revenue or monopoly profit: —

Price per Unit	Number Sales	Total Earnings	Variable Expenses per Unit	Total Variable Expenses	Fixed Expenses	Total Expenses	Net Revenue
$.10	600,000	$ 60,000	$.03	$ 18,000	$50,000	$ 68,000	—$8,000
.09	800,000	72,000	.03	24,000	50,000	74,000	— 2,000
.08	1,200,000	96,000	.03	36,000	50,000	86,000	+10,000
.07	1,800,000	126,000	.03	54,000	50,000	104,000	+22,000
.06	2,500,000	150,000	.03	75,000	50,000	125,000	+25,000
.05	3,500,000	175,000	.03	105,000	50,000	155,000	+20,000
.04	5,500,000	220,000	.03	165,000	50,000	215,000	+ 5,000

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[1] This subject would require further treatment in a larger work, but the limit of space and proper proportions compel us here to confine ourselves to the broad general statement.

Study of the table will show why, in the case assumed here, the monopoly price will stand at six cents. Competition, if it were present, would keep on increasing the supply as long as normal profit could be obtained. In our illustration the lowest price at which production could be carried on so as just to secure a profit above the expenses of production would be four cents; and four cents would therefore be the competitive price, or the price determined by the balancing of marginal utility against marginal cost of production. But since the monopolist has such control over the production that he can control the supply, he will cut off production at 2,500,000 units, at which point demand will fix a price of six cents, and will give the largest net return, viz. $25,000.

But the case here assumed is one that is far simpler than the cases frequently presented by real life. We should have to take many different illustrations even to approximate the rich complexity of economic life. We have, for example, assumed constant fixed charges, and such an assumption is one that is frequently helpful, because it often corresponds to actuality. But "fixed charges," so called, are, from the long-time point of view, variable. The constant charges of a street-railway system imply a street-railway system at a particular time and place and a street-railway system of a particular kind, *e.g.* one with single track and switches. If a street-railway system is enlarged so as to necessitate "double-tracking" and a new power plant, we will have new fixed charges. But anything like an exhaustive discussion of these points requires so much space as to be suitable only for special treatises.[1]

The Effect of a Tax. — Our numerical illustration may be made to convey a lesson regarding the influence of taxation upon monopolies and monopoly price. Fixed expenses have no influence in determining the price. If, therefore, a fixed tax, say of $5000 a year, were to be laid upon this monopoly, it would not result in an increase of price. A study of the table will show that with such a tax the net revenue at price .08 would be $5000; at price. 07, $17,000; at price .06, $20,000; at price .05, $15,000; at price .04, nothing. Thus price .06 will still be the point of maximum net revenue, and hence the monopoly price. On the other hand, a variable tax, for instance, a tax of one cent per unit, would result in this case in raising the monopoly price. In our illustration, such a tax would make the net revenue at the price .08, – $2000; at the price .07, $4000; at the price .06, nothing; at the price .05, – $15,000. Thus, though the monopoly would find its profits greatly curtailed by such a tax, consumers would be compelled to pay one cent more per unit for the monopoly product. The possible advantage which society might draw from the tax would therefore be wholly or in part offset by the increased cost of the commodity. Such a raising of the price will not take place, however, if the demand at the higher price is not sufficient to make as great a net revenue as at the lower price. We may conclude, therefore, that fixed taxes, or taxes on the net revenue of a monopoly, cannot be shifted wholly or in part by a change in price; while taxes laid in proportion to the amount of business, since they contribute an addition to the variable expenses, may be wholly or in part shifted by a change in price.

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[1] See references to literature at the close of the chapter. See also the treatment of Constant and Variable Expenses in Chapter XII on Value and Price.

A Law of Monopoly Price. — It is sometimes said that the price of a monopolized good depends solely upon the will of the monopolist. In the strict sense of the phrase this is not true. As our explanation has shown, the monopolist is forced by economic motives to establish such a price as will give the maximum net revenue. There are certain conditions on the side of demand which therefore have a decisive influence in determining monopoly price. We may group the most important of these in a general statement which may properly be called the *law of monopoly price: The greater the intensity of customary use of the monopolized commodity or service, the higher the general average of economic well-being, and the more readily wealth is generally expended, the higher will be the monopoly price which will yield the largest net returns.*

The phrase, *intensity of customary use*, may require explanation. It signifies simply the strength of custom with respect to the use of a monopolized article. If the people of France, for example, are accustomed to use large quantities of tobacco, — there a government monopoly, — and if they cling with a high degree of intensity to this custom, it will obviously be possible profitably to raise the price a great deal above competitive price; whereas, if the custom is one that is relatively weak, — that is, weak as compared with the force to which they cling to their customary consumption of other articles, — a very high price will so diminish consumption as to lessen net profits.

Thus monopoly, without any effort of its own, shares in the increasing wealth of a country, and absorbs a considerable part of it. It is, for example, among other influences, the larger wealth and the greater willingness to spend freely that makes monopoly more profitable in the United States than in Germany or other European countries. The search for other illustrations of the law should prove an interesting and valuable exercise for the student.

Class Price. — Thus far we have assumed that the monopolist charges one uniform price and sets the price at the point which yields him the largest net returns. But it is obvious that his gains will be increased if he is able to vary his price. His gains would be highest if he could charge each individual that price which would yield the largest net returns, taking into account the number of sales and profits on each. A rich man and a free spender might pay double the current rates for gas or electric light without diminishing his consumption in the least. But in the case of any large modern business it is obviously impracticable to fix a price for each individual, even were there no legal difficulties in the way, as there are in the case of the great monopolistic businesses such as gas and electric lighting, railway transportation, etc. The next best thing for the monopolist is to divide his public into classes, and to charge to each class that price which will yield the largest net returns. In the table already given, we found that six cents was the monopoly price on the hypothesis of one uniform price, but obviously, if the eight-cent and seven-cent prices could be secured, and six cents reserved as a price for sales that could not be made at eight or seven cents, the profits would be still higher. This gives rise to what, in its broad, general terms, we call *class price*. The monopolist seeks in every possible way to divide his community into classes and to secure from each the highest possible price. We observe a remarkable development of class price in the case of our railways; and, unless legal obstacles are interposed, this development will doubtless go still farther. We have special trains with an extra charge. We have privately owned railway coaches; our drawing-rooms and single seats in "parlor cars"; our ordinary first-class tickets; and our second-class tickets, the purchasers of which frequently ride in the "day coach" with the first-class passengers. Then we have single tickets, fifty-trip family tickets, monthly commutation tickets, etc., with enormous variations in price. We may go farther and say that the whole American railway rate system of "charging what the traffic will bear" is a consummate example of monopoly prices.

Nor need it be supposed that in all its ramifications class price is a bad thing. It is, when ignorance and need are exploited by a special high price; frequently it works well when an attempt is made to reach a class of limited means with a very low price, as in the case of early and late workingmen's trains, etc.

Monopoly price will vary with *use* also; and this is one special subhead under class price, and may be designated as *use price.* The typical instance is that of two prices frequently charged for gas: a higher when it is used for illuminating purposes; a lower when it is used for fuel.

Monopoly price necessarily varies from country to country, from place to place, and from time to time. This follows necessarily from our law of monopoly price, and is a matter of familiar observation. The monopoly price yielding the highest net returns is lower among the careful, prudent Germans with relatively small incomes than it is among the free-spending Americans with relatively large incomes often easily earned.

A difficulty suggests itself at this point, and this is found in the departure from uniformity of price of non-monopolized articles and services. We have to consider the question: Are the apparent class prices in competitive businesses class prices in the true sense of the term? If so, wherein does the *competitive class price* differ from the monopolistic class price? To answer this question we must first of all consider the distinction between what we may term "commodity competition" and "business unit competition."

When we speak about commodity competition, we have reference to that competition with respect to a commodity which gives uniform price, if competition works perfectly. We think of the great staples like wheat and wool, — those staples which have a world market. But the competition between retail business men is a competition of a different ~~sort. — It is the~~ competition of one business unit as such with another business unit as such. It is a kind of competition that exists between the grocers in the same city, or mammoth department stores in New York and Chicago. It is competition which is frequently very sharp; but even when it is the sharpest, it does not mean in retail trade real commodity competition. It does not mean that the prices of all goods sold are the same, but it means this: where we have sharp competition, the gains are in proportion to expenditure of economic energy, using that term "economic energy" as a composite term implying a certain output of economic force, whether this takes the form of labor or capital or business management.

Each one of the business units will make a specialty of some one line of commodities upon certain days. Special prices will be offered; but that means something very different from the class price which we have considered in our discussion of monopoly. Every one will agree that that is the case. The consumer considers very generally the prices charged as a whole. He knows very well when he goes to one retail establishment that for a certain particular article he may be paying a little bit more than he would pay in some other store; but the retail purchaser as a general rule does not consider each individual price, but he considers all the prices that he pays. It is intolerable for the consumer to go about a town searching for the lowest price of every little commodity, — to buy a paper of pins at one place because it is a little cheaper than at any other place, to buy a pound of butter at one place, a pound of sugar at another. People do not ordinarily do that.

Now each retailer looks upon his business as a unit. He tries to derive from the business as a whole the greatest profit. Each one is putting his capacity into the business. One says, "I can do better if I sell this article at cost, or if I sell that article somewhat below cost." It was not very long ago that a large department store in New York City sold the popular magazines at less than was paid for them. That was not a class price in any sense of the term. That was a certain expenditure for advertising purposes.

To some extent people do go about and try to get all the special prices in each particular establishment, but that is not done usually, so far as purchases as a whole are concerned. On the other hand, there is a limitation very often in the arrangement that a store will sell only so much — one pair of gloves or so many yards of silk at a special price — to one customer. But we are dealing here with a different sort of phenomenon from class price.

In wholesale business there is an attempt to unite the business unit competition and the commodity competition. Here the purchases are very much larger, and a person does not hesitate, to a certain extent, to go from one wholesaler to another wholesaler to make a particular purchase of some articles. Many persons would be a little bit ashamed to divide their groceries among a half-dozen grocers so as to get at each place the articles selling at a special price. When we have a unity of these two sorts of competition, then we have what we may call perfect competition, — where we have a competition between the business units which includes a commodity competition, so that all articles are selling at the same price and each dealer has net returns in proportion to what he puts in of economic energy.

It is in the nature of competition to cater to various economic classes in the community, and this is an entirely different phenomenon from that in the case of the gas company charging two different prices for an article according to the use to which it is put. Every retailer considers the class to which he will cater. Retailers tell us that such is the case. One will say, "We try to cater to the fashionable, wealthy people, the high-toned people." Another will say: "I do not try to reach the so-called 'best people'; I try to cater to the middle class. My training fits me better to cater to this middle class than to cater to the fashionable people. If I find that I can do this too, — very well; but I especially cater to the middle class."[1] We find that at stores like Marshall Field's they recognize the various classes of the community and try to reach the various classes of the community by their basement department, and by their first floor, and the upper floors. But that does not mean the absence of competition in the business as a whole; but, taking the business as a whole, it competes with other retail establishments in Chicago. Here we have a different class price from that we have considered. We have a competitive class price which, if the competition is perfect, yields no surplus. This does not mean that some will not gain more than others in competitive business. The gain is in proportion to the *output of energy.*

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[1] It must not be overlooked that there is a variation in cost of doing a retail business dependent upon the class of people to which a particular retailer caters. Over against the higher prices charged, let us say by a fashionable grocer, we have to put the higher quality of service. People of wealth and fashion require prompt service, involving expense. Also, frequently the shops that cater to fashionable people give very long credit and lose heavily in many cases. These are considerations of a different kind from those mentioned in the text.

Monopoly Price High Price. — It is often said, and frequently even in judicial decisions, that the monopolist can charge any price that he pleases. We have already seen that this is not the case. The law of monopoly price shows that the price, even in the case of monopoly, is determined by economic forces. It is conceivable that there may be cases in which monopoly price will exactly coincide with competitive price, although the probabilities would be against a frequent coincidence of this kind. There are also cases where monopoly price may be even lower than competitive price. If a monopolist should be able to effect great savings as compared with the expense of doing business under competition, it could theoretically happen that the price which would yield the largest net returns would be a lower price than would be possible under competition. Probably, and in fact almost certainly, under a condition of competition, letters could not be carried as cheaply as they are.

Generally there are strong reasons for the position that monopoly price is high price. Monopoly is formed for the sake of gain. Gain may be secured in two ways by monopoly: first, through economies of production; and it is alleged by trust promoters that these economies are a chief motive in their activity. There are some gains of this kind, but it is too early to say precisely what they are. When we compare a monopolistic business with a competitive business organized on such a scale as to secure the maximum of efficiency, the gains of competition in alertness and inventiveness, stimulated by rivalry, have recently been too little considered.

The second source of gain in monopoly is found in the ability to charge high price. In confirmation of the position that monopoly price is high price, we may refer to history, the utterances of which seem to be clear and distinct. At any rate, there can be no doubt that, in the opinion of historians who have treated the subject, monopoly means high price. Hume, in his treatment of monopoly in his *History of England*, speaks of the price of monopolized articles as exorbitant, and cites the price of salt, the price of which had been raised by monopoly tenfold and even more. The production or sale of salt, or both, is frequently a government monopoly, and it is generally conceded that in all cases of monopoly the price has been so extremely high as to be a real popular grievance; and it is generally necessary to inflict severe penalties to prevent the people from securing the salt at a lower price from non-authorized sources. But of still greater significance are the results of the investigations of the Industrial Commission of the United States, as seen in the Preliminary Report of 1900 (Vol. I of the complete report). It is there made evident that when monopoly appears in a form at all clear and well-defined, the tendency is plain to increase the margin between the prices of finished products and raw materials.[1]

The courts of the world have made it clear in their judicial utterances that they regard monopoly price as high price; and, as their opinions are based upon cases actually brought before them, we cannot do otherwise than attach great importance to their view.

Wherever commissions have been formed with power to regulate monopoly price, and these commissions have been comprised of independent and strong men, there has been a marked tendency to reduce monopoly price; because unregulated monopoly price has been found to be excessive and unjust. The judicially minded Railroad Rate Commission of Wisconsin affords an illustration. This Commission has authorized a higher price in a few cases, but generally has been forced to lower prices, although in the notable case of passenger rates it did not go so far as the legislature. The investigations of the Railroad Rate Commission led the members to believe that a reduction from three cents to two and one half cents per mile for all the leading railways in Wisconsin was just; whereas, subsequently, the legislature lowered the rate to two cents per mile. But even the decision of the Commission (which was accepted by the railways) was a reduction of over 16 per cent. Investigations held have resulted very generally in a lower price for gas. All important investigations of street-car service in the great cities of the United States have terminated in the conclusion that the monopoly price of five cents per passenger is a high price. The recent settlements with the street-car companies of Chicago have been based upon an agreement to maintain a five-cent fare and to give to the city of Chicago 55 per cent of the net gains. According to the statements of the interested parties, even this will leave a very handsome return for the owners of the street-car properties.

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[1] See Report in Vol. I (Industrial Commission), by Professor J. W. Jenks, on "Industrial Combinations and Prices," pp. 39–57; and also Chap. VIII, "Prices," in the same author's work, *The Trust Problem*.

In the next place, we refer to the experience and observation of men when they have had dealings with well-defined monopolies. The express companies and the oil business afford illustrations falling within the experience and observation of nearly all readers and students of this work.

Monopolies and the Distribution of Wealth. — We have not the precise statistical data which will enable us to state the exact influence of monopoly upon the distribution of wealth. We have, however, sufficient data to warrant the opinion that the high price of monopoly and the gains resulting from the exclusive position of the monopolist give us a large privileged class in countries of modern civilization, but especially in the United States. An advantage of the monopolist in the United States is found in the law of monopoly price, coupled with the failure to regulate monopoly as carefully in our country as it has been regulated in Europe, generally speaking. Ours is a country in which there is large wealth, in which wealth is easily acquired, and in which consequently people spend freely. Monopoly price must, then, be exceptionally high price and yield exceptional gains. Even when the increment of price is comparatively small, it has large significance in the case of the sale of a vast number of units of services or commodities. The difference between a four-cent street-car fare and a five-cent street-car fare may not appear to be great, but it is a difference of 25 per cent and is enormous.

All the many investigations that have been held recently in various lines of business (especially in railways, beef industry, coal mining, etc.) point to monopoly as a prime cause of the so-called swollen fortunes of this country. In this and other countries some histories of families distinguished for wealth have been written, and probably few if any cases could be found in which some monopoly element had not entered. Various lists of rich men have been published, among them one published by the *New York Sun* in 1855, and one published by the *New York Tribune* in 1892. These lists cannot by any means be presumed to be accurate, and yet they do afford very considerable evidence of the sources of large fortunes, and point to monopoly as a prime cause of the modern enormous fortunes. This is a subject which in itself would require a larger book than the present one for adequate treatment. The student must attempt by observation and study to carry forward the lines of investigation and thought here suggested, being constantly on his guard against undue haste in generalization.

Public Policy with Respect to Monopolies. — It is possible to throw out only a few suggestions in this place. As many monopolies have come as a result of underlying laws of industrial evolution, they cannot all be abolished. Experience and the nature of industries like railways, gas works, etc., falling under the head of "public utilities," so called, should be conclusive. We must have monopoly in these cases, and the only question we are concerned with is, "What kind of monopolies shall we have?" Again, we cannot abolish monopoly simply as a result of legislative enactment. The anti-trust laws of our states, so generally failures, should be conclusive as to this point. On the other hand, legislation is not powerless, but it must be in accord with the laws of industrial evolution. The problem is abolition of undesirable monopoly where this is feasible; and very generally regulation rather than destruction. Here, again, we have the experience of the United States and of other modern nations as confirmation.

We may, to begin with, admit that unregulated monopolies in private hands have always been odious and are opposed to the principle of the laws of civilized nations. They are opposed to that endeavor to secure equality of opportunity which is fundamental in modern democracy and which manifests itself as a red thread running through American history. Even George Washington, generally looked upon as so calm and self-contained, denounced monopolizers and wished they might be "hunted down as pests of society" and "hanged on a gallows five times higher than the one prepared for Haman."[1] It is not so much high price that disturbs the modern man as it is inequality of opportunity; and this general sentiment has been very clearly and forcibly expressed in court decisions. It makes little impression upon the American public when it is attempted to show that the Standard Oil Company has lowered price. The enormous fortunes to which it has given rise suggest that price has been higher than it should be, yielding far greater than competitive gains; but even if it could be proved that the price had been voluntarily lowered, it would not be convincing, because we are disturbed by the alleged engrossment of opportunities by a few members of the community and not open to others. Nor would it satisfy the American public to be convinced of the sincerity of the professed benevolence and of the personal integrity of the leaders of this gigantic undertaking. The question is one of the action of economic forces, largely impersonal; the leaders are often really coerced by these forces; and from one point of view are to be looked upon as their victims.

Obviously, the first step in a treatment of monopolies is to discriminate between monopolies owned and operated by organized society (that is, nation, state, or city, and managed in the general interest) and private monopoly. If it is true that a certain portion of the industrial field is naturally monopolistic, special privilege can be removed by government ownership. This is the first and most obvious method. The difficulties of government ownership are such, however, that another method is by many advocated as preferable and is, as a matter of fact, being thoroughly tried in the case of railways in the United States. And that is the method of public control of monopolies privately owned and operated. The public control, to secure equality of opportunity, must so regulate monopolies and limit price that the gains will be no higher than those produced by equally wise investments and equally wise

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[1] Bullock, *Essays on the Monetary History of the United States*, p. 67.

and prudent management in the field of competition.[1] Sometimes it is stated that owners of railways and other monopolistic enterprises should have a competitive return upon all the money that they have invested. This would give them a position of special privilege, inasmuch as in the competitive field a great deal of money is lost. It is only wise investment and careful management in the field of competition that can secure returns equal or superior to the current rates of interest. Imprudently invested capital is lost in the field of competition; and when it is imprudently and unwisely invested in the field of monopoly, it cannot justly claim any return.

Finally, democratic sentiment demands that there should be no needless extension of the field of monopoly through favoritism, as seen in rebates and special rates of railway transportation companies.

The Relation of Monopoly to Trusts. — The development of industry is treated elsewhere in this work, and it is shown that, as a result of the forces inherent in industrial society, we pass over from labor aided with few and simple implements, scarcely more than an extension of hands and feet, so to speak, to labor aided by increasingly complicated and costly tools, and then we find labor supplemented and even replaced by machines, ushering in the era of capitalism; and, as this transition is made, industry is conducted on an ever larger and larger scale. The business unit grows from the small, isolated shop to such a mammoth concern as the United States Steel Corporation, owning an appreciable proportion of the wealth of a vast nation. These large business units, as a result of evolution, are commonly designated as trusts; but they present simply the problems of large-scale industry unless they comprise elements of monopoly. This indeed very often, perhaps usually, happens in the case of the largest industrial establishments. They have been aided by rebates and other favors from railways, and they have made themselves master of peculiarly rich and especially limited supplies of natural resources, such as petroleum oil, anthracite coal, and the Mesabi iron range. The trust problem resolves itself into two classes of problems: first, the class of problems belonging to large-scale business; and second, the class of problems falling under monopoly. The discussion of so-called trusts can be profitably considered under these two categories. There is no magic in the mere word "trust," although it seems to have power to awaken alarm and has helped produce precipitate legislative action; whereas action must be preceded by an analysis of the trust problem into its proper elements to make possible its satisfactory solution.

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[1] This does not mean that in the case of old enterprises price must always be so reduced that the gains shall yield a competitive return only on the physical value of a plant. The principle of vested rights or interests has to be given a certain rôle. These have often been created by society rather than by private persons, and faith must be kept. In the case of railways and the telegraph, the American nation and states have deliberately encouraged a wasteful policy of competition which is in large measure responsible for high capitalization. It would not be right to place upon holders of these properties all the burdens of a mistaken public policy in the past. What is needed is to declare a public policy for the future and to base returns for the future upon future actual investments in the case of public utilities. In any case, we should have a physical valuation of railways, gas works, etc., as a help in determining fair prices for present and future. Now and here we can do no more than to throw out these suggestions in regard to a pressing present problem of great magnitude.

QUESTIONS AND EXERCISES

1. Has bigness anything to do with monopoly? Do you know any small business which is a monopoly? Do you know any very large business which is keenly competitive? Contrast a state of competition with a state of monopoly.

2. Define monopoly and discuss each point in the definition.

3. Describe as fully as you can the relation of industrial evolution to the idea of monopoly.

4. Do you think that monopolists now show a worse spirit than formerly? a better spirit? Describe the monopoly established by Joseph in Egypt. (Genesis, Chap. xlvii). What good effects did it have? Is it apparent that it had evil effects?

5. What do we understand by *partial monopolies?* What is there, strictly speaking, illogical in the term? Is this a sufficient reason for not using it?

6. Contrast land-ownership with monopoly.

7. Explain the importance of classification of monopolies, and especially of distinguishing between private and public monopolies.

8. State the main classes of monopolies, and give the divisions and subdivisions in each class.

9. A public tobacco monopoly exists in France and produces large revenues. The business is said otherwise to be well managed. Do you see any benefits

that would accrue from the establishment of such a monopoly in the United States? any evil effects?

10. Define monopoly price and show how it is determined.

11. What does class price mean? Compare monopoly class price with competitive class price. Explain "use price."

12. Contrast "commodity competition" with "business unit competition."

13. Why do we think of monopoly price as high price? Do you know any monopoly price which is a low price? What do you mean by high price? by low price?

14. What relation has monopoly to large fortunes? to small fortunes? What, if any, to poverty?

15. What is the wise public policy with respect to monopolies?

16. Describe the relation of trusts to monopolies.

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CHAPTER XIV

MONEY

The vast system of valuation and exchange, which is the most characteristic single feature of present-day economy, rests upon the use of money. Some economic writers have pictured an imaginary primitive state of "barter economy," in which, before the use of money, goods were exchanged directly for goods. But what little definite information there is on this point leads to the belief that about as soon as men began to exchange things, and consequently to attach *exchange value* to them, they began to use some kind of money—some commodity or commodities for which things were generally exchanged, and in terms of which the values of other things were generally measured.

These earliest forms of money were crude and simple, but they sufficed to meet simple needs. As exchange economy has advanced through the growth of individual and industrial specialization and the localization of industry to the present complex division of labor, the monetary system has developed *pari passu*, the most conspicuous feature of this development in modern times being the growing importance of *credit* as a means of effecting exchanges. Industrial and commercial progress has led to monetary progress, and has, in turn, been stimulated and made possible by it.

Various Meanings of the Word "Money." — The word "money," like so many other terms with which economics has to deal, has in common usage no restricted technical meaning, but may denote any one of a number of different things. It sometimes means *individual wealth* of any sort. A "monied" man is simply a wealthy man. This is, however, only a colloquial and purely derivative meaning. A second, and very common, use of the word is in the sense of *generally exchangeable purchasing power*, whether this be embodied in concrete forms of money, or exist only in the intangible form of credit. Money in this sense is synonymous with "money funds." The "money market" is the market for loanable money funds. When we speak of "money income," "money expenditures," "money investments," etc., we refer to this exchangeable purchasing power.

Other meanings of the word "money" suggest that, for some purposes, a distinction may he made between "money" and credit instruments. But to look for any definite line of demarcation, consistently followed in common usage, or even in economic writings, would be a vain search. The element of credit is found in most forms of money, even, as we shall see, in some kinds of metallic money. A useful and important distinction, however, is made by the very common practice of restricting the term "money" to those *instruments of general acceptability* which pass freely from hand to hand as media of exchange. The particular things included in this third concept of money vary for different periods and for different countries. In the United States this freely exchangeable medium includes the metallic and paper money issued by the federal government, together with national bank notes. Checks drawn by individuals upon their bank accounts are not money, or money instruments, in this sense, because they do not pass freely from hand to hand as media of exchange. They can be used only in making payments to persons who know and have confidence in the drawer, indorser, or holder of the check.

This third meaning of the word "money" possesses, as has been suggested, the sanction of a very common and prevalent usage; it corresponds, moreover, to the technical definition given to the word by many economic writers, and to the official usage of the United States Treasury. Some writers, however, have drawn the line between money and other means of payment somewhat differently, either refusing to count bank notes as money, thus limiting the term to *money instruments issued by the government*, or narrowing the application of the term yet further by using it to denote only *metallic money*, all other media of exchange being counted only as promises to pay money.

Yet another, and still more restricted, meaning is attached to the word when it is employed to denote only that part of the stock of metallic money which serves as a *standard of value* as well as a medium of exchange. Although this extreme limitation of the meaning of the word "money" is neither common nor justifiable, the distinction suggested by it is a fundamental one. For, as we shall see presently, the value of all other media of exchange is determined by their relation to what is best distinguished by calling it *standard money*.

All these different uses of the word "money" imply distinctions of greater or less significance, but for purposes of economic analysis the most important concepts are the second, third, and last in the foregoing enumeration. Recognition of the fact that exchangeable purchasing power, money instruments of general acceptability, and the standard of value are different things is indispensable to clear thinking in this field. In this chapter the word "money" will be employed in the sense of money instruments of general acceptability.

Metallic Money. — The earliest and simplest forms of money were commodities. Particular commodities came to serve as money, not because they were arbitrarily designated as such by king or chieftain, but because they possessed some properties which made them exceptionably exchangeable. In some cases a primitive community came to use a commodity as money because it was something for which they had a dependable "foreign market" — something, that is, which they customarily sold to other communities in exchange for their products. In other cases a commodity which a community did not itself produce, but which it got only in the course of trade with other communities, became the money commodity. Or, if for any reason a particular commodity came to be particularly esteemed as a mark of wealth or a badge of social prestige, it was very apt to be used as money. But whatever the original ground of the choice, a commodity which a community once began to think of as money had its exchangeability, and consequently its suitability for monetary uses, increased in cumulative way, just as to-day most of us are willing to accept anything as money which we think we can use as money.

A great variety of commodities have at one time or another been used as money. Some typical examples are cattle, grain, furs, oil, salt, tobacco, ivory, shells, and tea. But with the advance of political and economic civilization the *metals* have, through the process of the survival of the fittest, proven themselves everywhere to be preëminently and indisputably the best money commodities. Copper, silver, and gold have each in turn been chosen as the principal money metal of the civilized world, the transition from the cheaper to the dearer metals indicating the growth of exchange and the consequent need of larger money units.

Metals, and especially the precious metals, have certain qualities that give them a peculiar fitness to serve as money. They are durable, easily recognized and tested, and may be divided into homogeneous units of convenient form and weight. Moreover, as compared with most other commodities, the precious metals are relatively stable in value — a fact that arises in part from their durability, for any one year's supply output of the mines makes but a comparatively small addition to the total stock of metallic money.

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Coinage. — When metals were first used as money, they passed from hand to hand simply by weight, or, in some cases, in the form of ornaments. Coinage speedily developed, however, as a convenient way of certifying to the weight and fineness of money units.[1] Such a guarantee is naturally of little avail unless it is generally recognized as authoritative. On this account the coinage of money has almost universally been regarded as a prerogative of the sovereign. In England, even under the divided sovereignty of the middle ages, the coining of gold and silver was generally a privilege belonging to the king alone. The lesser feudal lords and the chartered cities issued token coins, made of the baser metals, and intended especially for local use, but if they possessed the right of coining the precious metals, it was through a special grant of the king.

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Seigniorage. — Sovereigns have in the past very often viewed the monopoly of coinage as an opportunity for personal profit. By calling in the stock of metallic money in the country for recoinage, they have frequently reduced the weight of coins without changing their nominal value, thus increasing the number of coins, so that a handsome profit was netted for the royal treasury. Debasement of the currency was a favorite financial expedient of Henry VIII, of England, and of Philip the Fair and Louis XIV, of France.

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[1] The names of many ancient coins and of some modern ones are also the names of weights, although it has generally happened that through successive debasements of the coinage these names have lost their original significance. The Greek talent, the Jewish shekel, the Roman as, the English pound, and the French livre are familiar examples.

Somewhat less reprehensible in theory, although amounting to about the same thing in its effects, was the common practice of making a charge for coinage, called *seigniorage*. This practice was based on the idea that it was possible to maintain a difference between the value of a coin and the value of the bullion put into it.[1] A great deal has been written about the possibility of seigniorage, for the subject is one that involves considerations that are fundamental in monetary theory. It has been often said, for example, that it is the "government stamp," rather than the metallic content, that gives value to a coin. Leaving aside the matter of limited or subsidiary coinage (which will be considered presently), we may dispose of this statement by saying that if it means that the use of certain metals as money decreases the supply of them available for other purposes, and thus increases their value, it is a truism; but if it means that in coinage we can add an arbitrary and intangible element of value to the metallic content of the coin, the statement is a false and misleading doctrine that has been disproved over and over again by the monetary experience of almost every country.

There is, however, a stronger statement of the theory of seigniorage. If the only way in which I can convert bullion into a medium of exchange is by being content with 750 ounces of money for every 1000 ounces of bullion I take to the mint, will not the coins have a value one third greater than that of the metal they contain? May not their "metallic content" be said to be, in a figurative sense, one third more than their weight, because they cost me that much more in bullion? If their bullion value sinks below this point, bullion will not be brought to the mint, as it would be worth more than the coins one could get for it; just as when the value of the coins rises above this point the supply of bullion would be stimulated so that as a result the value of the coins would tend to maintain this fixed relation to the value of bullion. Confidence in the solvency of the government may be assumed in this reasoning; but as a matter of fact, it is probable that in a completely isolated community the government could, through wise and careful regulations, maintain a constant rate of profit on the coinage, without endangering the stability of the monetary system.

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[1] Under Philip the Fair, of France, the seigniorage charge went as high as 50 per cent. Charges of from 2 to 15 per cent were more common.

The fundamental difficulty with seigniorage is, however, that in foreign trade coins pass current only as bullion, so that when seigniorage was charged, the prices of imported goods, measured in money, were necessarily higher than their prices measured in bullion, by an amount equal to the seigniorage. It was impossible that one ratio could long be maintained between the value of coined money and the value of bullion in domestic trade and another ratio in foreign trade. The interdependence of the prices of all kinds of goods prevented that. Money prices, in general, always rose; that is, the value of the coins sank to the level of the value of the bullion they contained. Under these conditions no one would voluntarily undergo the loss inseparable from taking bullion to the mint for coinage, and with the cessation of coinage the profits from coinage stopped. Every possible expedient, short of the absolute prohibition of foreign trade, was tried by sovereigns in their efforts to retain these profits.[1] But market forces were found to be stronger than royal regulations, which at best only served to retard somewhat the depression in the value of the official coinage. About the only effective way of getting seigniorage profits was for the sovereign to admit that the coins in circulation possessed only their bullion value, and then to call in the currency for recoinage into smaller pieces, in the manner that has already been mentioned, thus starting afresh with a new seigniorage charge. The result was invariably a repetition of the process of a more or less rapid depreciation in the purchasing power of the coins, leading often to further debasements of the currency.

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[1] The use of any other circulating medium than the official one was prohibited; no one was allowed to sell imported gold or silver, whether in bullion or coin, save to the royal mint; if there were mines within the country, they were sometimes prohibited from disposing of their products except to the royal mint; goldsmiths were forbidden to melt down coin or to purchase more bullion than they needed, and this they were forbidden to buy at less than the mint price; restrictions were placed on the export of bullion; these and other similar methods were tried, but all to no avail. Cf. W. Lexis, article "Münzwesen," in *Handwörterbuch der Staatswissenschaften.*

Modern nations have abandoned the attempt to secure profits from their monopoly of the coinage. Since 1666 England has made no charge whatever for coining bullion into standard money.[1] Most of the countries of continental Europe make a charge just sufficient to cover the expense of coinage. This charge is sometimes called seigniorage, but it is usually, and more properly, called *brassage.* The United States made no coinage charge until 1853, when a charge of one half of 1 per cent was made for coining standard money. This was reduced in 1873 and was abandoned entirely in 1875. At present the United States exchanges gold coins, weight for weight, for bullion of standard fineness (nine tenths gold, one tenth copper) brought to the mint in lots of one hundred dollars or more in value. For crude bullion, or bullion not of standard fineness, gold coins are exchanged containing as much fine gold as is contained in the bullion, less a trifling charge for assaying, refining, and for the alloy.[2]

Instead of viewing coinage as a profitable prerogative of the government, we have come to view it as a government duty, to be performed at government expense. The question of seigniorage *versus* gratuitous coinage is no longer a live issue. But the student who has grasped the significance of the lesson contained in the history of seigniorage has taken an important step toward the understanding of monetary theory. There is no mysterious element of intangible value created by the operation of coinage. The coinage of standard money is now in law, and always has been in fact, a device for dividing the standard money metal into convenient units of certified weight and fineness.

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[1] In practice most of the gold bullion coined in England is supplied to the mint by the Bank of England, which is required by law to purchase it at the minimum price of £3 17*s*. 9*d*. per ounce. An ounce of bullion makes £3 17*s*. 10½*d*. in gold coin, the difference going to compensate the bank for the delay involved in getting the bullion coined at the mint. In the United States the waiting devolves upon the government, for gold coins, or, at the option of the depositor, checks upon United States subtreasuries or upon depository banks are paid to depositors as soon as their bullion can be weighed and assayed.

[2] The coinage mints are at Philadelphia, San Francisco, New Orleans, and Denver. In addition there are assay offices at New York, Carson, Boise, Helena, Charlotte, St. Louis, Deadwood, and Seattle, which receive bullion on the same terms as the mints, plus an additional charge of one eighth of 1 per cent.

The Standard of Value. — We have seen in an earlier chapter that prices are exchange values measured in terms of money. Goods and services are exchanged for money in certain ratios, and these ratios constitute the prices of the goods and services. Some writers have made a distinction between the functions which money performs as a *medium of exchange*, and its functions as a *measure of value*. These are not, however, two different functions, but merely two different aspects of the same thing. By the very process of exchanging a commodity for money, we of necessity measure its value in terms of money, and only as a medium of exchange does money measure value. We may speak of a pound weight as an instrument used in weighing or as a measure of weight, but we would all recognize that this refers only to two aspects of the same thing.

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In the United States the actual medium of exchange with which we measure values is heterogeneous in that it comprises a variety of coins, made from different metals, together with several kinds of paper money of many different denominations. But it is homogeneous in that first, all these different forms of money are alike in name, — that is, they are dollars, or multiples or fractions of a dollar, — and second, these various kinds of dollars are identical in value. This familiar and very satisfactory condition of uniformity in the units in which we measure value does not, however, suggest to us the real nature of the value of money in the way that a less perfect monetary system would.

It would be possible to have a number of different monetary units, just as the weight or size of an object may be stated in terms of either the metric system or the English system of weights and measures. In fact, before the United States had an adequate monetary system of its own, the actual medium of exchange consisted largely of English, French, Spanish, and Portuguese coins, and there were as many different ways of stating prices, that is, of measuring values, as there were units of value.[1] Nor does the mere name of "dollar" give to different pieces of money a uniform value. The silver dollar of Mexico is worth only about half as much as the silver dollar of the United States, although it is of approximately the same size. More significant, however, is the fact that in the United States we have had at different times "dollars" of unequal value.

What is it, then, that gives uniformity to the dollar as a unit of value in our present monetary system? To say that various kinds of money are equal in value because they will purchase the same amounts of goods is, obviously, to argue in a circle. But the answer is found in the fact that they are *interchangeable,* and so long as any number of kinds of money, all named in dollar units, are freely exchangeable, dollar for dollar, it is impossible that a dollar in one kind of money should be worth more than a dollar in any other kind of money. We do not refer here to the fact that the different kinds of money are exchanged for each other at par in business transactions and in banking, for this is a result, rather than a cause, of the uniform value of the money units. The exchangeability that underlies the uniform value of our different kinds of money is maintained by the federal government.

All coins smaller than a dollar are by law exchangeable at the United States Treasury for "lawful money," which includes government notes, silver dollars, and gold coins. Government notes, in turn, are simply promises to pay, which are redeemable in gold at the government Treasury. While there is no definite legal mandate requiring the redemption of silver dollars in gold, yet the cur-

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[1] An instructive bit of monetary experience may be found in the efforts of some of the colonies to reduce this foreign money, especially Spanish money, to the English system of pounds, shillings, and pence, in which accounts were generally kept. They were not content with a simple official statement of the actual ratios between the different value units, but sought to give an artificially enhanced value to the foreign coins by increasing the number of shillings to which they were to be considered equivalent. The result was not, however, an increase in the value of the coins, but a decrease in the value of the nominal "shilling" in which accounts were kept. This was the origin of the now rapidly vanishing use of the word "shilling" as equivalent to 12½ cents in some localities and to 16⅔ cents in others. The student may find an instructive parallel in this experience and the official statements of coin values by which sovereigns tried to retain their seigniorage profits.

Silver – " " unless specified

Sub – – – 50-25-10 – to $10

Minor – 5-1 to 25¢ –

G & S Certificates — not L.T.

Treasury & U.S. Notes – yes unless specified

Natl. Bank-notes – not L.T

rency act of 1900 makes it the duty of the Secretary of the Treasury to maintain all other forms of money at a parity with gold — a requirement which means that he would have to redeem silver dollars in gold if such action should at any time be needed to maintain their parity. Gold certificates and silver certificates, are simply a mechanism for putting gold and silver money into circulation in convenient form. They are analogous to warehouse receipts, because they represent gold coins and silver dollars that are stored in the government Treasury to the full amount of the certificates issued, and which may be obtained at any time in exchange for the certificates. National bank notes, which constitute a large part of our actual circulating medium, are redeemed at the federal Treasury in government notes. In practice the government is continually receiving all kinds of money, including silver dollars, and exchanging other kinds of money for them.

The significant thing is that all other kinds of money are exchangeable, directly or indirectly, for gold coin. In the case of gold coin, there is a further kind of exchangeability — the unlimited and free convertibility of gold coin and gold bullion. So long as any one can secure gold coin in any amount for the same weight of gold bullion of standard fineness, and so long as gold coin can be freely melted down into gold bullion, it is impossible that there should be any difference between the value of a gold coin and the value of its metallic content. We have, then, not only the interchangeability of all parts of the circulating medium, but also the positive physical identity of one part of it and the material of which this part is made. Gold, whether in coin or bullion, constitutes the *standard of value*, for it is the value of gold that fixes the value of the dollar. The measuring of values in terms of dollars through the exchange of goods and services for money of different sorts, the equalizing of the values of dollars in all varieties of money through their exchangeability, and the automatic standardization of the value of the dollar through the free and unlimited coinage of gold[1]; — these are the fundamental facts of our monetary system.

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[1] In fixing the value of coins at the value of their metallic content, unlimited coinage is of more importance than free coinage, as the history of seigniorage shows. Some writers have emphasized the importance of the legal tender quality

2.58 gr alloy
25.80 Standard — Limit of Tolerance .25

Gold coins, because their value as bullion is equal to their value as coins, constitute *standard money.* The gold dollar weighing 25.8 grains, and containing 23.22 grains of fine gold, is by law the *unit of value.* The coinage of the gold dollar was discontinued in 1890, but the gold coins that are minted contain precisely this amount of gold per dollar. = 2½, 5, 10, 20 -

Limited Coinage. — Gold is the only metal which is made into coins by the United States government for any one who deposits bullion at the mints or assay offices. All other coins are made from metal purchased from time to time for that purpose as Congress may direct. In none of these coins is the bullion worth as much as the coin. In 1878, when the United States began the limited coinage of silver dollars, the value of the 371¼ grains of pure silver in a silver dollar was about 89 cents. The value of silver declined steadily until 1902, when 371¼ grains of silver were worth only 41 cents. Since that time there has been a slight upward movement, but nevertheless the present (1908) bullion value of a silver dollar is only about one half its value as a coin. The bullion value of the smaller silver coins is still less, for they contain but 347.22 grains of silver to the dollar, while the bullion value of our nickel and bronze coins is yet smaller, relatively.

ard
gr
fine
silver
½ gr
copper

Such coins are sometimes called "token coins," the implication being that the fact that they pass from hand to hand at their full nominal value is merely a matter of habit or usage, supported by general acquiescence. More accurately, however, they are credit coins, because the excess of their coin value over their bullion value depends ultimately, as we have seen, upon the good faith and credit of the government, evidenced by their redeemability in gold. If, for example, a catastrophe should overthrow the present federal government, and if the new government should refuse to recognize the obligations of the old, nothing could prevent these coins from sinking to their bullion value.

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in this connection. But experience has shown that while the fact that money must be accepted by a creditor at full value sometimes makes an otherwise undesirable kind of money a "generally acceptable medium of exchange," it does not suffice to maintain its value, so far as prices made after such money has been issued are concerned.

A very considerable profit accrues to the government from this limited coinage. The difference between the amount paid for silver bullion from 1878 to 1907, and the value of the coins made from it, amounted to $143,000,000. In the accounts of the federal treasury this profit is called seigniorage, but it is to be carefully distinguished from real seigniorage, — a charge exacted for the conversion of standard bullion into standard coin. If the federal government should issue a general balance sheet of the kind used in corporation accounting, the credit element in its outstanding limited coinage would properly appear as a liability, which might be greater or less than the profits that had accrued on such coinage, depending upon whether the present value of the bullion in the coins happened to be greater or less than the prices which the government had paid for it.

Bimetallism. — A monetary system like the present one of the United States is a *single standard* system, because only one commodity is used as a standard of value. The *double standard* system, under which two different commodities serve concurrently as legal standards of value, has, however, been used in the past by many governments, including our own, and its superiority over the single standard system has been alleged by many advocates. Practically the only commodities that civilized nations have used as standards of value in modern times are gold and silver. The question of the double standard resolves itself, accordingly, into the question of the bimetallic standard, which means in practice the unlimited coinage of both gold and silver.

Bimetallism does not mean, in theory, as might be supposed, the establishment of two different monetary units of different names, one measured by the value of a certain amount of silver, the other by the value of a certain amount of gold, prices being measured according to convenience in terms of either unit. On the contrary, it contemplates the establishment of one nominal unit, such as the dollar, to be measured at the same time by the value of either a definite amount of gold or a definite amount of silver. More concretely this means the opening of the mints to the unlimited coinage of both gold and silver into dollars, or dollar multiples, the amount of silver in a silver dollar and the amount of gold in a gold dollar being established by law.

Many of the arguments that have been advanced by bimetallists have related to the alleged immediate advantages to be secured from the adoption of the double standard under particular conditions of time and place. One argument, however, of more general significance is based on the probable greater stability in value of the double standard. Silver and gold are produced under somewhat different conditions, and are used for somewhat different purposes. It has been suggested that tendencies toward fluctuations in the value of silver and gold would, therefore, be as apt to be in opposite directions as in the same direction, and that so far as they were in opposite directions they would tend to counterbalance each other.

Most opponents of bimetallism, while admitting that, if feasible, it might possess some advantages, deny its possibility. The difficulty is, they maintain, that while the ratio of the weight of gold in the monetary unit to the weight of silver in the monetary unit has to be fixed and definite, the ratio of the *value* of gold to the *value* of silver is not fixed and definite, but is subject to the fluctuations of the market. If one metal is relatively undervalued and the other relatively overvalued by the legal ratio, the result will be that only the overvalued metal will be brought to the mint for coinage, for the undervalued metal will be worth no more than the overvalued one as coin, but will be worth more as bullion. The actual result will be, in such a case, not a bimetallic standard, but a single standard composed of the metal which, at the mint ratio, is the cheaper. Moreover, if, by a change in the relative market values of the two metals, this one in turn becomes undervalued by the mint ratio, the standard coins composed of that metal that are already in use will, according to Gresham's law,[1] disappear from circulation, being hoarded, melted down, or exported, and the other metal will take its place as the actual standard of value.

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[1] Gresham's law is that "bad money drives out good," or that "the cheaper money drives out the dearer." Sir Thomas Gresham, master of the mint under Queen Elizabeth, came to this conclusion as a result of his observation of the difficulties encountered by that sovereign in her attempts to improve the condition of the debased, worn, and mutilated coinage bequeathed to her by her predecessors.

All but the most extreme bimetallists would admit the impossibility of establishing and maintaining a coinage ratio between the two metals that would differ by any considerable margin from the ratio corresponding to their market values, but they maintain that a mint ratio established as nearly as possible to the prevailing market ratio will have a steadying influence upon the latter that will tend to prevent any wide divergence between the two. If one metal should rise in value to such an extent that it would not pay to use it as money, more of the other metal would be used for monetary purposes, thus decreasing the supply of it available for other uses and consequently enhancing its value. The net effect would be, it is claimed, a tendency toward the equilibrium of the value of the two metals at the coinage ratio.

The appeal to history has been used both by bimetallists and their opponents. The claim of the monometallists that legal bimetallism is apt to mean actual monometallism, with the relatively cheaper metal as the standard, has been substantiated many times in the monetary experience of different nations. The automatic change from one single standard to the other, following a change in market values, is also a phenomenon that has been illustrated by a large number of concrete cases. On the other hand, the bimetallists are able to point to some apparently successful bimetallic systems, such as that of France in the eighteenth century. But it is a significant fact that no real bimetallic system has been able to endure for any considerable time except when the annual production of gold and silver was relatively small and relatively stable, and where international trade was a relatively unimportant item. There is no scientific student of monetary problems who believes that it would be possible for any nation to maintain independently the double standard under the present conditions of a large and fluctuating annual production of the precious metals, coupled with an international commerce of vast proportions.

International bimetallism, that is, the adoption by each of the leading nations of a bimetallic standard, at a ratio fixed by national agreement, has had many supporters, even among those who do not believe in the practicability of national bimetallism, and representatives of different nations have assembled in several international monetary conferences for the discussion of this subject. International bimetallism would remove one difficulty experienced in the attempts made by different nations to maintain independent bimetallic systems at even slightly differing ratios, — and that is, the tendency for each metal to flow from the countries in which it is relatively undervalued in the mint ratio to the countries in which it is relatively overvalued. Other difficulties, however, would still remain, and the possibility of maintaining an actual bimetallic standard even under international agreement, supposing that were possible, is open to very serious doubt.

The waning of public interest in the question of bimetallism in recent years is of great significance, because it indicates that the real moving forces behind the bimetallist propaganda have not been any real or assumed points of superiority of general significance that may be imputed to a multiple standard, but rather that certain specific results that would flow from the adoption of bimetallism at a particular time and place have been desired. More specifically, bimetallism has been supported by those who have desired "cheaper money," and these have been particularly active when the monetary standard in actual use has been increasing in value; that is, when prices in general have been decreasing. The recent great increase in the world's production of gold has, temporarily at least, taken bimetallism out of the list of economic problems of general public interest.

Bimetallism in the United States. — The national monetary system was established by act of Congress in 1792.[1] The mint was opened to the free and unlimited coinage of both gold and silver, the silver coins containing 371¼ grains of fine metal per dollar, and the gold coins 24¾ grains per dollar, the ratio of 15 to 1 being thus established. It was soon found, however, that gold was worth in the market slightly more than fifteen times as much as silver, and

[illegible]

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[1] The act of 1792 followed in detail the recommendations of a Report of the Establishment of a Mint, by Alexander Hamilton, then Secretary of the Treasury. Hamilton incorporated some of the recommendations contained in earlier reports by Robert Morris and Thomas Jefferson. Hamilton's Report has been frequently reprinted, but it, together with the reports of Morris and Jefferson and other pertinent documents, may be conveniently found in the Report of the International Monetary Conference of 1878.

as a consequence but little gold was brought to the mint for coinage, while the gold that was coined illustrated Gresham's law by speedily disappearing from circulation.

Silver dollars, too, disappeared from circulation, but for another reason. They were somewhat lighter than the Spanish dollars which were in general circulation at the time, and would, under the operations of Gresham's law, have driven the latter out of circulation, had it not been that the Spanish dollar commanded a slight premium over the American dollar in ordinary purchases. But the American dollars, on account of their new and attractive appearance, could be used as advantageously as the Spanish dollars in trade with the Spanish possessions in America. They were consequently taken from the country for that purpose, while Spanish dollars were brought back and were often recoined into a larger number of American dollars. This wasteful coinage of silver dollars was stopped in 1806 by order of President Jefferson, leaving the mint open to the coinage only of gold, smaller silver coins, and minor coins. As a matter of fact American coins made up only an insignificant part of our circulating medium before 1834.

Realizing the impossibility of maintaining a gold coinage under such conditions, Congress, in 1834, changed the legal ratio to 16 to 1 by reducing the weight of the gold dollar. By this step, however, they went too far in the other direction, for silver was undervalued at this ratio, and while the number of gold coins increased, but little silver was brought to the mint, and silver coins quickly disappeared from circulation. In order to secure a supply of small change, Congress was forced, in 1853, to abandon the principle of the free and unlimited coinage of silver coins smaller than a dollar, and to order that they should be coined, as at present, only from bullion purchased by the government at the market price. At the same time the weight of these subsidiary coins was reduced by one seventh to insure their being retained in circulation.

The discovery of gold in California, in 1847, and in Australia, in 1851, suddenly increased the world's supply of gold by an unprecedented amount. In fact, the careful estimates of Dr. Soetbeer indicate that as much gold was produced in the third quarter of the nineteenth century as in the preceding three centuries and a half following the discovery of America. The result was to increase the discrepancy between the mint ratio and the actual market ratio of gold and silver, although the production of silver had also been greatly increased. Gold was brought to the mint for coinage in enormous amounts, — a condition that lasted even after 1861, when paper currency began to be used almost exclusively as the medium of exchange.

In a general revision of the coinage laws, enacted in 1873, the silver dollar was dropped from the list of coins that could be manufactured at the mint. Although this action was almost unnoticed at the time, a fictitious significance has, in subsequent years, been attached to it. Silver was practically "demonetized," that is, its free and unlimited coinage was actually prevented, by the establishment of the ratio of 16 to 1 in 1834. The act of 1873 gave legal recognition to an existing fact.

But a sudden depreciation in the value of silver, which began at about this time, brought the question of bimetallism again into the foreground. Since the seventeenth century the relative values of gold and silver had fluctuated only between relatively narrow margins, and in no year since the establishment of the United States mint had the average annual value of an ounce of gold been less than 15 or more than 16½ times the value of an ounce of silver. In 1875, however, the market ratio fell to 16.6 to 1; by 1878 it was 18 to 1; by 1886 it was 20.8 to 1; and in 1894 it was 32.6 to 1.[1] It is evident that if the opportunity for the free and unlimited coinage of silver at the ratio of 16 to 1 had still existed, there would have been another sudden change in the actual standard of value. Gold would have been undervalued by that ratio, and would have disappeared from circulation, and silver would have taken its place. It was the realization of this fact, coupled with the knowledge that the silver standard would mean a "cheaper dollar," that led to a popular agitation for the free and unlimited coinage of silver which continued for more than twenty years.

The first tangible result of this agitation was a compromise measure, the Bland-Allison Act, passed by Congress in 1878, which instituted the limited coinage of silver dollars by authorizing the secretary of the treasury to purchase at market prices not less than $2,000,000 nor more than $4,000,000 worth of silver bullion per month, and to coin it into dollars. The results of this enforced coinage were satisfactory to neither party to the controversy. The amount of silver coined was in excess of the demand for that bulky kind of money, even though as much as possible was put into circulation in the form of silver certificates, and although the government tried to favor the distribution of silver by paying the expense of transporting it to the localities where it was wanted. The movement in favor of the unlimited coinage of silver continued to gain in strength, however, its advocates claiming that "more silver," rather than less, was needed.

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[1] The causes of this unprecedented decline in the relative value of one of the precious metals were complex and intricate. The following may be mentioned, however, as contributing circumstances: (1) Cessation of an extraordinary demand for silver in India which had existed since 1850; (2) Stoppage of the unlimited coinage of silver in several European countries; (3) Discovery of large silver mines in the United States; (4) Increase in the value of gold, as evidenced by a general decrease in the prices of commodities.

A second compromise was effected in the Sherman act of 1890, which provided for the increase in the amount of silver purchased to 4,500,000 ounces each month, which was to be paid for in treasury notes. These treasury notes were to be full legal tender, and were redeemable in gold or silver coin at the discretion of the secretary of the treasury. The silver was to be coined only so rapidly as was found necessary for the redemption of the treasury notes. The increase in the amount of silver purchased was a concession to the advocates of the unlimited coinage of silver; the fact that the circulating medium based immediately on these purchases was composed of treasury notes, which were injected into circulation in proportion to the *market value* of the silver purchased, was a concession to their opponents.

The soundness of the principles embodied in the Sherman act was soon tested by a period of financial and industrial depression. Gold had to be exported to Europe in large quantities to settle an adverse balance of trade, and the government found difficulty in maintaining its own gold reserve, which was already seriously threatened by a decline in customs receipts, accompanied by an increase in federal expenditures. The gold reserve was at that time simply the amount of gold in the treasury that was available for the redemption of other forms of money, — especially the United States notes, or greenbacks, that had been first issued during the

Civil War, but which did not become actually redeemable in gold until 1879. During this scarcity of gold the banks were able to secure gold for their own reserves or for export by presenting United States notes at the treasury for redemption in gold. Under the law the notes had to be immediately reissued, and were used in government payments, but no sooner was this done than they were again returned by the banks for redemption in gold.

The workings of this "endless chain" by which gold was pumped from the government treasury were aggravated by the fact that the treasury notes authorized by the Sherman act were used for the same purpose. Although they were payable either in gold or silver coin, they were actually redeemed on demand in gold. This was at the urgent insistence of President Cleveland, who believed, with good reason, that a refusal to redeem them in gold would probably have forced the silver standard upon us, by destroying the exchangeability of silver and gold and thus putting an end to their parity, and that it would certainly have injured the credit of the government and put it to a disadvantage in the bond sales that were needed to replenish the gold reserve. Under the operations of the Sherman act the government was virtually exchanging gold coin for silver bullion at a time when gold was sorely needed and when the value of the purchased silver was steadily depreciating.

The gold reserve sank from $190,000,000 in 1890 to $95,000,000 in 1893. In June of the latter year the closing of the mints of India to the unlimited coinage of silver gave an added impetus to the downward movement of the value of that metal. These facts led Congress, in a special session called in 1893 for that purpose, to order, though with obvious reluctance, that the purchase of silver under the Sherman act should be stopped.

The agitation for the free and unlimited coinage of silver continued, however, and with increased vigor, and it was made the sole issue in the presidential campaign of 1896. It was alleged that the yet continuing industrial depression could be alleviated only by "more money" and "cheaper money." It was claimed by many intelligent people that the unlimited coinage of silver would not drive gold from circulation, but would increase the value of silver and decrease the value of gold until they met at a parity established by the desired legal ratio of 16 to 1. The most effective argument of the protagonists of silver was found, however, in the admitted fact that the value of gold, as shown by changes in the general price level, had been increasing. All indications pointed toward a continued decrease in the annual production of gold, and a consequent further increase in its value. This, it was argued, was a hardship to those who had borrowed money on long time obligations, such as mortgages, because they would be forced to repay in value or purchasing power more than they had borrowed.[1]

This agitation was, in fact, simply one of a series of cheap money movements that have characterized the economic development of the United States, and which have sprung from the fact that the expense of opening up and developing new lands has necessitated expenditures of capital in an amount far beyond the resources of the actual settlers. Newly settled regions have usually been debtor regions, and there is more than mere coincidence in the fact that demands for cheap money have always been voiced most loudly on the frontier.[2] This does not mean that a cheap money movement is essentially dishonest; that it represents the conscious attempts of debtors to escape the payment of their lawful debts. The life and vigor in this movement for the unlimited coinage of silver was put into it by men who saw the imputed value of their assets sinking and the difficulty of paying their debts increasing in a financial crisis for which they were not individually responsible. Money funds were hard to get because individual credit, the foundation of bank credit, was lacking. This scarcity of money funds was confused, naturally, if erroneously, with the scarcity of "money" in the sense of standard money, — gold; and the remedy was sought in an action that would give more and cheaper standard money.

The defeat of the advocates of bimetallism in 1896 would probably not have stopped the agitation for the unlimited coinage of silver, had it not been for the return of prosperous conditions, coupled with an enormous increase in the world's annual production of gold, which has brought with it a general increase in prices.

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[1] This argument raises the problem of the *standard of deferred payments*, which is to be considered in Chapter XVI.

[2] Cf. C. J. Bullock, *Essays in the Monetary History of the United States*, Part I.

The single gold standard was formally and definitely recognized by law in 1900. All of the silver bullion purchased under the Sherman act has been coined, and silver dollars sufficient in amount to retire the treasury notes have been set aside for that purpose. These treasury notes (which should not be confused with United States notes, or greenbacks) are accordingly on substantially the same basis as silver certificates. Up to June 30, 1907, their amount had been reduced from $156,000,000 to $6,000,000. No silver dollars have been coined since 1904, and under the present law no more can be coined until Congress authorizes the special purchase of bullion for that purpose.

The Dominance of the Gold Standard. — Within the last few years gold has been accepted more generally and more definitely than ever before as the standard money metal of the world. The change from a silver, or bimetallic standard, to the gold standard is often a difficult and expensive national undertaking, but it brings the advantages of a more stable unit of value and of increased facility in international exchange. In October, 1906, the silver standard prevailed only in Bolivia, four of the countries of Central America, China, Persia, and the Straits Settlements.[1]

Government Paper Money. — In metallic money of limited coinage, there is, as we have seen, a considerable element of credit value added to the actual bullion value of the coins. In paper money the element of credit is alone present. Government paper money is composed of instruments which bind the government to pay, and usually to pay on demand, equivalent amounts of metallic money, — usually standard money.

Government paper money also differs from metallic money of limited coinage in respect to the motives which give rise to and regulate its issue. Subsidiary coins are issued by the government in response to the demand for a circulating medium for use in small transactions and in making change. The public convenience is the first consideration; the profit accruing to the government on such coinage is a secondary thing. In issuing government paper money,

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[1] Report of the Director of the Mint, in Finance Report, 1907, p. 297.

Paper = 1. Representative — Gold & Silver Certificates
2. Fiat = Soft money - Greenbacks -
3. Credit or Fiducíary - Bank notes -

however, fiscal motives have predominated. When hard pressed to swell the government income to cover an increase in expenditures, those responsible for the financial policies of a government have sometimes deemed it advisable for the government to make use of its own notes, *promises to pay*, in discharging its obligations.

These differ from government bonds, which are often issued in similar circumstances, in that the bonds bear interest, are sold to voluntary buyers, and are usually payable at a definite time in the future, while government notes are usually non-interest bearing, represent a *forced*, rather than a voluntary loan, and are usually, in form at least, payable on demand, or in practice, at an indefinite time in the future. They are, moreover, issued in convenient form for monetary use, and are usually made legal tender, so that they pass from hand to hand as a medium of exchange. The forced loan which they represent is therefore shifted from those who first receive the notes from the government in payment for goods or services.

Colonial and Revolutionary Bills of Credit. — Paper money issues have frequently been used in the United States as a means of meeting a fiscal emergency, especially those springing from the extraordinary expenditures occasioned by wars. The expense of sending troops to the Indian wars was one of the things that led most of the American colonies to issue paper money. The history of these colonial "bills of credit," as they were called, illustrate two dangers that seem to be inseparable from the use of this financial and monetary device. 1 In the first place, it was very easy to succumb to the temptation of paying ordinary as well as extraordinary expenditures in this easy way. 1 Some of the colonies got entirely out of the habit of taxing themselves to meet current public expenses. The refusal to levy taxes was a prolific cause of disputes between colonial assemblies and royal governors.

In the second place, because no money was raised for the purpose, these bills of credit were not redeemed promptly. 2. Their value, as compared with metallic money, fell because people lost confidence in their redeemability. As the currency depreciated, it took continually larger issues of it to meet the government expenditures, and each increase in the amount in circulation led to a

Revolutionary Issue $450000000 vs 30000000 [illegible] further fall in value. After the currency had become practically worthless, it was a common practice of the colonies to repudiate it in whole or in part, and to start afresh with bills of a "new tenor." Any attempt to restrict this reckless use of public credit was met with determined resistance from the "cheap money" advocates of that day. There were frequent complaints of the scarcity of money, especially from the more newly settled districts. The greater the quantity of money issued, the more insistent was the demand for still further issues. In short, this colonial experience in itself gives sufficient basis for the inference that from the monetary as well as the fiscal point of view, the use of paper money easily degenerates into a bad habit.

Again, in the Revolutionary War, paper money issues were made, — this time by the Continental Congress as well as by the individual colonies. The Continental Congress was really driven to this action by its lack of the power of levying taxes. Its bills became practically worthless, although every effort was made to maintain their parity with metallic money by appeals to patriotic sentiment. After the formation of the national government a few of them were redeemed at one cent on the dollar.

It was our unfortunate colonial and revolutionary experience with paper money which led to the insertion of the wise provision in the federal Constitution which forbids the individual states to issue bills of credit or to make anything but gold and silver legal tender in payment of debts.

The Greenbacks. — The federal government made no important issues of paper money until the Civil War.[1] It was not generally foreseen that that conflict would be so long continued and intense as it was, and Congress consequently neglected to make adequate provision for taxes that would help to meet the increased expenditures and to sustain the government credit in the borrowing operations that were necessary. In 1861 the secretary of the treasury was authorized to issue at his discretion $50,000,000 in "demand notes," which, although they were not legal tender, could be used in all payments to the government. These were redeemed promptly on demand until the end of the year, when the withdrawal of gold from the banks by depositors for hoarding, and by the government for its own uses, led first the banks and then the government to suspend specie payments, — that is, to refuse to pay their current obligations in gold.

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[1] The federal government issued treasury notes in the war of 1812 and the Mexican War, and during the panics of 1837 and 1857. Most of these issues were interest bearing, however; none of them were legal tender, and none of them got into common use as media of exchange.

See Title Cards under [illegible]

In 1861, moved by the absolute necessity of providing some kind of money for the federal treasury, Congress authorized the issue of $150,000,000 in legal tender notes,[1] or greenbacks, as they came to be called. It was hoped, moreover, that this increase in the circulating medium would improve the market for government bonds for which the greenbacks were at first made convertible at par. This action was not taken without strenuous opposition on the part of those who foresaw some of the disastrous consequences of large paper money issues. But as in earlier American experience with paper money, succeeding issues met with less and less resistance. All together, greenbacks to the amount of $450,000,000 were issued during the war.

It was the general expectation when the greenbacks were issued that they would be retired as soon as possible after the conclusion of the war. But when such action became possible, it was opposed by many who thought that the reduction of the circulating medium would decrease prices, impose additional burdens upon debtors, injure business interests, reduce the public revenues, and hamper the government in the refunding of its public debt. In 1866, however, Congress authorized the gradual retirement of the greenbacks, but repealed the act in 1868. The amount in circulation in 1874 was $382,000,000, and in that year a bill requiring the definite increase of the issue to $400,000,000 was prevented from becoming law and thus establishing a dangerous precedent only by the veto of President Grant. Some greenbacks were retired under the provisions of an act of 1875, but in May, 1878, there were $346,681,000 outstanding, and as a law then enacted provides for their constant reissue after being received or redeemed at the treasury, the amount still stands at that figure. The part that they played in the financial difficulties of 1890–1893, together with the history of the treasury of the notes of 1890, has been described in connection with the discussion of bimetallism.

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[1] Including the "demand notes," which were now made legal tender.

At present the greenbacks constitute a useful and acceptable part of the stock of money. But if another financial crisis should deplete the government treasury, they would very likely prove again to be a source of difficulty. Their retirement is feasible under present conditions, but would be most difficult to accomplish under the very financial conditions under which they would be most dangerous. The currency act of 1900 provides for a gold reserve of $150,000,000, to be held against them to insure their redeemability. If the reserve falls below $100,000,000, the secretary of the treasury is directed to replenish it from the proceeds of bond sales. Although this gold reserve also constitutes part of the real security behind our silver dollars, it could safely be diminished in amount if the greenbacks were retired.

Economic Effects of the Greenbacks. — The greenbacks are in form promises to pay, but they are not promises to pay on demand, nor at any specific time. During the period of the suspension of specie payments they were not actually redeemable in gold, nor was gold in general circulation as a medium of exchange except on the Pacific coast. Gold was, however, in addition to its industrial uses, employed as money in international trade, in the payment of interest on government bonds, and for customs duties (for which the greenbacks were not legally receivable). There was thus a constant demand for gold money, which was met by its sale as a commodity in the New York market. The gold market was highly speculative, the daily and even the hourly fluctuations in the price of gold in greenbacks being considerable. Notwithstanding these speculative features the prices paid for gold indicated very accurately, in the long run, how much, in the expert judgment of market specialists, the value of the greenbacks had depreciated.

Everything that was thought to affect the probability of the ultimate redemption of the greenbacks in gold influenced their price. Among these factors were the quantity of greenbacks issued, the condition of the federal treasury, the military successes and reverses of the Union cause, and, in later years, the prospects for the resumption of specie payments. Greenbacks reached a parity with gold two weeks before the resumption of specie payments on January 1, 1879. A fact of special significance is that until July, 1863, the greenbacks were convertible at par into 6 per cent gold bonds. These bonds formed an actual standard of value for the greenbacks, and although themselves depreciated, exercised for the time being a steadying influence upon their value.

As the common medium of exchange consisted almost entirely of greenbacks[1] and of bank notes convertible only into greenbacks, prices were measured in greenback "dollars" and naturally rose as the gold value of the greenback depreciated. Reference to the table on page 240 will show a rough correspondence between changes in the general level of prices, expressed in greenbacks, and changes in the value of gold, measured in greenbacks. But the price of commodities rose relatively higher than did the price of gold, and declined less rapidly.[2] Retail prices, in turn, declined less rapidly than did wholesale prices. Wages advanced more slowly than prices; maximum wages were not paid until 1872, — seven years after retail prices and eight years after wholesale prices had reached their maximum.

That there was not a closer correspondence between the movement in general prices and the changes in the value of the greenback was due to two sets of influences: (1) Even if greenbacks had not been issued, and if prices had been measured in gold, there would have been marked fluctuations in prices, — not only such as continually occur in normal years, but also those due to such exceptional things as the withdrawal of a large number of men from industry and agriculture to military service, the shifting of productive effort in response to the enormous demand for military supplies, the period of extraordinary business activity, of railway building, and of agricultural and industrial expansion that followed the war, the reaction and financial crisis in 1873, and the return of prosperous conditions in the last years of the

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[1] Subsidiary coins did not go out of circulation until 1862, when the value of the greenback dropped below the value of the bullion in these coins. Postage stamps and notes and tokens issued by cities and by business firms were for a while used as small change. In 1863 the situation was helped by the issue of fractional paper currency in denominations as low as three cents.

[2] The more detailed figures, of which the table given here is only a summary, show that the prices of commodities also *advanced* more slowly than did the price of gold. For an illuminating discussion of these price changes see Mitchell, *Gold, Prices, and Wages under the Greenback Standard*, Chap. V.

TABLE I

Prices and Wages in the Greenback Period[1]

Year	Average Annual Price of Gold in Greenbacks	July Wholesale Prices[2]	Average Annual Prices[3]		Average Wages[4]
			Wholesale	Retail	
1860	.....	100	100	100	100
1861	.....	95	94	107	99
1862	113.3	120	109	131	104
1863	145.2	155	148	168	119
1864	203.3	236	225	215	142
1865	157.3	183	224	219	155
1866	140.9	191	203	208	164
1867	138.2	170	177	193	167
1868	139.7	165	180	190	170
1869	133.0	158	172	177	179
1870	114.9	145	156	166	179
1871	111.7	137	144	155	184
1872	112.4	139	138	151	185
1873	113.8	140	143	148	183
1874	111.2	138	144	145	175
1875	114.9	129	134	140	163
1876	111.5	118	120	135	153
1877	104.8	114	117	134	143
1878	100.8	99	99	127	142
1879	100.0	98	93	123	139

[1] Compiled from *Gold, Prices, and Wages under the Greenback Standard*, by Wesley C. Mitchell. The figures in the price column are "index numbers," that is, they are obtained by counting the price of each commodity in each year as a percentage of its price in 1860, and then averaging the various *relative prices* thus obtained for each year. The figures in the wage column are computed in a similar way. In the "price of gold" column parity between greenbacks and gold is represented by 100.

[2] 92 commodities. [3] 21 commodities. [4] For 78 establishments.

greenback period.[1] (2) The depreciation in the value of the greenback in gold was measured quickly and accurately in the gold market, but the movement of prices was hampered by habit, custom, existing contracts, local influences, etc. We have seen in the discussion of value that retail prices are less sensitive to changing market conditions than are wholesale prices.

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[1] This statement is subject to the limitation implied in the fact that general commercial conditions were themselves caused in part by the influence of the cheap and fluctuating medium of exchange.

Wages, in turn, are usually less mobile than retail prices. All these things interacted. Wages, to give only one example, constitute an important part of the expenses of producing commodities, and the sluggish movement of wages kept the expenses of production from advancing, and, later, from falling as rapidly as would otherwise have been the case, and must have had a corresponding effect on the prices charged for commodities.

Aside from these general changes, the minor fluctuations, the short-time variations in prices, were unusually wide and numerous, — a fact which may be attributed to the uncertain value of the medium of exchange. Such fluctuations were apt to upset all business calculations; chance became more important and foresight less important as a factor in profits. Under such conditions an intense and reckless spirit of speculation was bred, with unfortunate effects on business morality as well as on economic conditions.

As a fiscal expedient, the greenbacks led to results as disastrous as those which attended their use as money. The government was forced to sell bonds for depreciated greenbacks, but in order to maintain its credit it had to pay the interest and ultimately the principal of these bonds in gold. Supplies for the army were paid for in depreciated greenbacks, but these greenbacks had to be ultimately redeemed in gold. It has been estimated that the use of the greenbacks increased the cost of the Civil War by nearly $600,000,000.

Fiat Money. — After 1873 the advocates of cheap money were not content with merely opposing any reduction in the quantity of the greenbacks. They went so far as to urge that the amount of paper money should be greatly increased, and that the use of metallic money should be definitely and permanently abandoned. Bank notes were also attacked because they were issued by "privileged corporations." The question came to be an important political issue, and in 1876 it brought about the organization of the Greenback party, which figured in three presidential campaigns, and which polled more than a million votes in the congressional elections of 1878. In more recent years similar demands were voiced by the Populist party.

The theory of money which formed the basis of the contention of the members of the Greenback party is sometimes called the "fiat money" theory. Those who held this theory of money saw no significance in the fact that the greenbacks were in form promises to pay and that they were generally regarded as only temporarily irredeemable. In their view they were simply "dollars," made such by the expressed will of the government. Nor did they see any significance in the fact that during the seventeen years of the suspension of specie payments over $500,000,000 in United States gold coins issued from the mints. As a matter of fact the fiat money advocates were misled by what some logicians have called the "jingle fallacy." That the "dollar" of the ordinary medium of exchange and the "dollar" as a standard unit of value were different things did not occur to them.

If they had succeeded in eliminating the credit element in the value of the paper currency by ceasing to print "promises to pay" (as they actually proposed to do), and had instituted a new name for the money unit, — possibly (to reverse the spelling) "rallod," — they would surely have encountered difficulty in getting people to accept pieces of money paper, informing them that "*This is a rallod*," as money. It is hard to see how "the supply of money as compared with the demand for it," on which the fiat money advocates counted to fix the value of their money units, would have helped matters very much. Nor would the convertibility of fiat money into interest-bearing bonds, which was suggested by some, have given us a standard of value. For the bonds would have been simple promises to pay a certain sum in fiat money units, with interest at a certain rate, also in fiat money units. The difficulties that would have been encountered in international trade would alone have sufficed to make fiat money impossible.

Some writers have referred to the greenbacks as the "standard of value" during the suspension of specie payments. As a matter of fact gold, under the operations of unlimited coinage, was the ultimate standard, and the standard dollar was the gold dollar. The value of the greenback dollar, in which prices were measured, was the value of the gold dollar, discounted according to the outlook for the ultimate redemption of the greenbacks in gold. The greenbacks were at most only a "secondary standard" of value.

(*For Questions and References, see the following chapter.*)

Mistake 263

CHAPTER XV

See Johnson's Lect Pamph pg -1

CREDIT AND BANKING

Credit Transactions. — Thus far, in our discussion of money, we have failed to take account of the fact that the greater part of exchanges are credit transactions, which do not directly or immediately involve the use of money (in the sense of generally acceptable money instruments). A credit transaction is a transfer of goods, services, or money, for a future equivalent. In a "cash" transaction there are only two elements, — the goods sold and the money paid for them. But in a credit transaction a third element — time — is added. The introduction of this third element leads to exceedingly important results. In the first place it makes possible an enormous number of exchanges in which the buyer is either unable or disinclined to render a present equivalent. In the second place it obviates, to a very large extent, the necessity of using money.

Suppose, for example, that A and B are the only inhabitants of an isolated community. Three ways of making exchanges are open to them. They can use a system of direct exchange or barter, which will prevent A from getting goods from B unless he has some equivalent which he is willing to give up and which B is willing to accept. Or, they may use one commodity as money, in which case the purchasing power of either A or B at any given time will be governed by the amount of that particular commodity that he possesses, rather than by the total amount of all his possessions. But by combining a system of credit with their use of money, they will be able to make transfers freely, for in an occasional balancing of accounts most of the payments due each other will cancel, leaving only a relatively small amount to be paid in money.

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Something very much like this third process is continually going on in contemporary economic life. The process is more complex, however, because A actually sells things to one person or group of persons, and buys them from other persons. And it is very likely that these two groups, the sellers and the buyers in A's transactions, have no direct business transactions with each other in which their respective claims against A and debts to A can be canceled. If, however, we take all buyers and all sellers into account, and if we could push our analysis of the complex network of credit relations far enough, we would find points of contact between A's credits and his debts. That is, if A gives a promissory note in exchange for a purchased good, this promissory note might be passed on from hand to hand until it got into the possession of some one who is indebted to A, — if the path it should take were known. The difficulty is that the path is not known. The institution of *banking*, however, provides *clearing centers*, where credits and debts are balanced against each other and canceled.

A, for example, has a "deposit" in a local bank, which means that he has the right to demand payments from it at any time up to the amount of his deposit. He usually makes a payment to B, not by a promissory note, but by a check, — an instrument ordering the bank to pay B the specified amount. This check will be presented for payment by B at a bank where he has a deposit, but the "payment" will usually be made by adding the amount of the check to B's deposit. If it is the bank where A also has his deposit, the transaction is settled by the simple process of debiting A's deposit and crediting B's. If it is another bank in the same town, and if the town is a small one, the check will enter into the daily exchange by the two banks of such claims against each other, the daily balance in favor of either bank being usually settled in money.

In the larger cities a further economy in the use of money is achieved by means of the *clearing house*, to which a representative of each bank brings daily all of the checks drawn against other local banks which it has received since the last "clearing." At the clearing house the checks are turned over to the representatives of the banks against which they are drawn, but the balances are not settled between the individual banks. Instead, a balance is struck between the total sum of each bank's claims against other banks and the total claims of other banks against it. Each bank then pays to the clearing house, usually in money, or receives from it, as the case may be, the amount of balance due to it or from it. This system achieves a great economy of both time and money.[1]

If the banks in which A and B keep their deposits are in different towns, A's check will probably be sent by B's bank to a bank in a neighboring large city, in which B's bank has its own deposit account. If A's bank is also in the territory tributary to this same city, the check may be sent by the city bank directly to A's bank for collection, or to its own correspondent bank in the same town. If A's bank is in another part of the country, the check will be sent to a bank located in a large city in that region, which will attend to its collection.[2] Thus a check drawn on a local bank in California, deposited in a local bank in Illinois, will very likely be collected *via* Chicago and San Francisco. The balances of credits and debits which are thus created between city and country banks are settled to a very large extent by means of crediting and debiting deposit accounts in city banks, thus obviating by that much the necessity for frequent shipments of money. In general, we have in the United States a continuous balancing and cancellation of debts and credits, first, in each locality; second, between each important city and its tributary territory, and, third, between the different important cities. Much the same process is characteristic of international exchange, but that is a topic which will be treated in another chapter.

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[1] Over $95,300,000,000 in checks and drafts passed through the New York Clearing House in the year ending September 1, 1907. The money balances paid amounted to 3,800,000,000, or only 4 per cent of the total clearings. The average cash payments required during the last fifty-four years have amounted to 4.64 per cent of the clearings. In times of financial stringency clearing houses sometimes allow the payment of balances in "clearing house certificates," issued to individual banks upon the basis of approved securities deposited with the clearing house. In some cases the banks have temporarily put such certificates into general circulation as an emergency currency.

[2] The London Clearing House clears for all England in a very simple and efficient way. A country bank sends its daily receipts of checks on banks in other towns to the London bank in which it keeps a deposit. In a daily "country clearing" these checks are distributed to the London banks with which the banks on which the checks are drawn keep accounts. The mere territorial extent of the United States makes such a scheme unworkable here. Various proposals have been made, however, for central clearing houses that will make clearances for limited districts.

Personal Credit. — If a man does not hoard money on the one hand, or fail to pay his debts on the other hand, his expenditures (including investments) are bound to be, in the long run, approximately equal to his income. But for a business man a continuous equality of income and expenditure is impossible. At some times his deposit account will be built up more rapidly than he checks it out; at other times his need for means of making payments will outrun his receipts. If, for example, he is a contractor, whose expenses of production are fairly constant, but whose product is paid for only when completed, or a merchant, who replenishes his stock of goods twice a year but whose sales are distributed throughout the year, or a farmer who must pay his harvest expenses before he sells his crops, he may find it necessary to utilize his *credit*. Now, his personal credit, his power of purchasing things without immediate payment, will depend to some extent on his personal ability and integrity. But, nevertheless, the fundamental measure of his credit will be the amount of his realizable wealth. This, however, is apt to consist largely of property that is not "for sale," — his stock of consumption goods and his income yielding land or capital.

These things do not have to be sold in order to convert them into means of payment. To meet a temporary need they may be made the basis of credit, through the process of *hypothecation*, a name which means the conditional transfer of property rights. The 1. hypothecation may be definite and formal, as when a mortgage is given on specific items of property or when valuable credit instruments of various sorts (such as government or corporation bonds, bills of lading, warehouse receipts, etc.) are put into the actual possession of the creditor as "collateral security"; or it may be simply 2. implied, as in the case of an "unsecured" personal note, for practically all of the property of a borrower, over and above the items specifically hypothecated for certain debts is, in legal fact, hypothecated for his remaining debts. It is important to note, too, that future values, rather than present values, constitute the basis of present credit. The lender's interest is in the question of the adequacy of the value of the security at the time when payment becomes due. Present values being equal, a borrower can secure a

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larger amount of credit when market conditions are improving than when they are declining.

A man's probable future income and the probable future value of his property, then, constitute the real measure and foundation of his individual credit. His individual credit, however, is of very little use to him as a means of payment. Some difficulties in the way of using individual notes as media of exchange have already been suggested.[1] There is another difficulty in the fact that his personal notes will not be willingly accepted by others in lieu of money payments unless they know him, the value of his property and the extent to which it is already hypothecated. Moreover, these same difficulties stand in the way of such notes being passed from hand to hand through successive indorsements.

Bank Credit. — In order to make it readily available as a medium of exchange, personal credit has to be transformed into bank credit. Instead of using his own note as a medium of exchange, a business man will normally have it "discounted" by his banker. If the note is for sixty days, for example, the business man yields the right to demand a specific amount of money from him in sixty days, in exchange for a deposit credit, — the right to receive on demand the same amount of money less the discount.[2] The business man adds the note to his liabilities and a deposit to his assets. The bank adds the note to its assets and the deposit to its liabilities.

Having converted his personal credit into a bank deposit, the business man can now use it as a means of payment through the checking system that has been described. Ordinary commercial banking consists, in large part, of this purchase of personal credit and sale of banking credit. The bank builds up assets in the form of loans and discounts at the same time that it builds up its obligations in the form of deposits.

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[1] It is true, of course, that business men often accept their customers' notes in payment of accounts, or as an equivalent for goods purchased. These notes, however, do not usually pass any farther as a medium of exchange, but are indorsed by the business man and presented to a bank for discount. Such notes, usually known as "trade paper," constitute a large part of the securities of many commercial banks.

[2] Discount is simply one form of interest. Banker's discount differs from ordinary interest in that it is computed as a certain per cent of the total amount that is repaid, while ordinary interest is computed as a per cent of the amount that is loaned. Discount is deducted from the principal of the loan in advance; interest is paid at the maturity of the loan or (on long time loans) at stated intervals. On demand or "call" loans and on time loans on collateral security "interest" rather than "discount" is charged.

The security behind the deposits in any bank consists of: (1) loans and discounts, which in turn rest back upon personal credit or upon specifically hypothecated property (as in the case of loans on collateral security); (2) bonds, mortgages, and other securities owned by the bank, which, if necessary, may be sold for the benefit of the depositors, unless specifically pledged as security for bank note issues; (3) the bank's own deposits in other banks, together with the checks or similar claims against other banks that are in its possession; (4) its other property (building, fixtures, etc.); (5) (in national banks and some state banks) the personal liability of the bank's stockholders;[1] (6) its stock of money.

But that these assets should suffice to cover the deposit liabilities of a bank is not in itself sufficient to maintain its solvency. Much depends upon the character of the assets, — the amount of money included in them, and the ease and quickness with which other parts of the assets can be converted into money. Each deposit account is an obligation of the bank to pay in actual money if it is demanded. The depositor cannot use checks for all kinds of payments, but will often have to draw on his deposit account for money. Even when payments are made by checks, those who receive them will often prefer to cash them rather than to deposit them. Moreover, the process of the cancelation of credit obligations is, as we have seen, not altogether perfect. Balances arise between individual banks in the same city, between city and country, and between different cities that very often have to be settled in money.

A bank accordingly has to keep enough actual cash on hand to enable it to meet any demands that may be made upon it for money.

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[1] Even in case some of the bank's loans or securities prove worthless there is a margin of safety for the depositors in the fact that some of the assets of the bank represent the original investments of the bank's stockholders ("*capital*") or profits which they have put back into the business ("*surplus*"), and on such assets the depositors have the first claim. Moreover, in national banks and some state banks the stockholders are personally liable up to an amount equal to the par value of their holdings.

As deposits constitute the most important cash obligations of a bank, the size of this money *reserve*, as it is called, is normally fixed for safety's sake at a certain per cent of the amount of the deposits. This proportion varies according to the location of a bank and the nature of its business. In practice it varies in different commercial banks from as low as 5 per cent to as high as 35 per cent of the deposits.

If its reserve increases, a bank is at liberty to increase its deposits by extending its loans and discounts, attracting these, possibly, by lowering the discount rate. If the reserve is decreasing, the bank must, for safety, contract its deposits by restricting its loans and discounts, or by taking measures (such as the sale of securities for money) that will replenish the reserve.[1] In order that the ratio of reserve to deposits may be maintained near the point where the right balance is struck between profitableness on the one hand and safety on the other hand, it is necessary that the bank's assets should be as *fluid* as possible. This is best accomplished by confining most of the loans or discounts to notes or bills of exchange that are payable in thirty, sixty, or ninety days, or, at most, in four or six months, so that a constant flow of maturing obligations makes it possible for a bank to expand or contract its loans and discounts, and hence its deposits, as seems most advisable.

There is in the larger cities of the United States, especially in New York, a growing use of bank loans payable on demand. This enables the banks to keep their outstanding loans much closer to the maximum allowed by the state of their reserves than would otherwise be the case, but the practice has, as we shall see presently, other effects that are not so desirable.

By the "money market" is usually meant the market for exchangeable purchasing power in the form of loanable funds; that is, in reality, the bank credit market. The amount of bank credit available, the freedom with which banks will make loans on certain kinds of securities, and the interest and discount rates charged for bank credit are among the things that make up what is called "the state of the money market." But it should be clear to the reader that *the state of the money market depends, primarily, on two things: first, the amount and nature of the personal credit that can be converted into bank credit, and second, the amount of money in the bank reserves.*

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[1] Some banks maintain a "bond reserve" of high grade securities that may be sold to enable the bank to meet an extraordinary demand for money or to enable it to extend its loans and discounts when necessary. Such investments are normally made by commercial banks when the demand for loans does not absorb the funds at the bank's disposal, that is, when money reserves are unprofitably large.

Bank Notes. — There is one way, however, in which banks can meet some of the demand for money without drawing on their reserves and thus reducing their power of extending credit. This is by the issue of bank notes, which are simply the promises of banks to pay money on demand, issued in convenient and familiar form for use as paper money. These notes are paid as money to customers of a bank who want the proceeds of their borrowings in cash, and to depositors and to holders of checks who prefer money to deposit credit. Bank notes pass readily from hand to hand as money, and at the present time constitute an important part of the circulating medium in most countries.

Bank notes are like deposits in that both are demand liabilities of banks. Bank notes, however, circulate among persons who have no means of informing themselves as to the solvency of the banks issuing them. The holders of bank notes are accordingly usually given special protection by laws which regulate the conditions of their issue and redemption.

State Banks of Issue. — Before the Civil War the actual circulating medium of the United States consisted in very large part of notes issued by banks operating under state laws. The notes issued by some of these banks were as "good as gold" because the banks redeemed them promptly in gold, — a fact which was due in some cases to wise and rigid state regulation of banking, and in other cases, fewer in number, to conservative use of the too extensive privileges granted by lax state laws. But the notes of other banks were depreciated and in many cases were absolutely worthless.

Public ignorance of the real nature of banking gave rise to the supposition that wealth could be mysteriously manufactured by means of a bank charter and a printing press (the fiat money theory applied to bank notes). This and the ever recurring demand for cheap money were responsible for the situation. Prohibited by the Constitution from issuing their own bills of credit, many of the states, especially in the South and West, responded to the clamor for cheap money by making it possible for their citizens to organize "banks" and issue their own bills of credit, imposing few or no requirements as to the actual investment of capital, the accumulation of assets, or the restriction of note issue.[1] In the panics of 1814, 1837, and 1857 but few banks maintained specie payments. Even so late as 1860, although the hard lessons of experience had brought some improvements, especially in the older states, the bank note circulation was of decidedly varying quality. "Bank note reporters" and "counterfeit detectors" had to be issued periodically in order to give to business men the latest quotations and information relating to the depreciated currency they had to receive in the ordinary course of business. After 1861 the suspension of specie payments led to a general depreciation of bank notes as compared with gold because most of them were thereafter redeemable only in greenbacks.

The National Banking System. — The successful state banking system of New York was the model after which Congress, following the recommendations of Secretary Chase, patterned the national banking system which it established in 1863. The primary, although not the only, motive that led to this action was the desire to provide an artificial market for government bonds, which at the time were a drug on the market. National banks were required to use government bonds as the assets behind note issues, and furthermore, the national banks were, in 1866, given a monopoly of the note issue privilege by the imposition of a prohibitive tax of 10 per cent per annum upon the note issues of state banks.

The details of the national banking law have been amended from time to time, but the general principles of the regulation of the note issue remained unchanged until Congress passed the Aldrich act in 1908. As the law has stood since 1900, national banks may not be organized unless the stockholders contribute a minimum capital, varying from $25,000 for places of less than 3000 population to $200,000 for places of more than 50,000 population. Three limitations are put on the ordinary issue of circulating notes: (1) They must not exceed in amount the capital stock of the bank. (2) United States government bonds have to be purchased by the bank in amount sufficient to equal, dollar for dollar, the quantity of the notes issued, and these bonds have to be deposited with the treasurer of the United States as security for the redemption of the notes. (3) Each bank must maintain in the United States treasury a redemption fund in "lawful money" equal to 5 per cent of its note issue. As this last requirement indicates, bank notes are redeemable at the federal treasury. They may also be used in all payments to the government except customs duties, although they are not legal tender.

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[1] Some states circumvented the constitutional prohibition mentioned by establishing their own banks for the manufacture of paper money. The Bank of Kentucky was the most famous of these.

The Reserve System. — While the note holder is thus protected by a special kind of security set aside for the purpose, the depositor in a national bank is protected only by its general assets. These, however, are regulated to some extent by the federal government. There are restrictions, for example, intended to prevent the bank from tying up its funds in long-time investments, from lending too much to one person or firm, or to directors or officers of the banks. Five times a year national banks have to furnish full statements of their condition to the comptroller of the currency at Washington. Each bank is also examined twice a year, without notice, by federal bank examiners.

But the most important requirement relates to the money reserves that must be held by national banks. Banks in "central reserve cities" (which at present are New York, Chicago, and St. Louis) are required to maintain a "lawful money reserve"[1] equal to at least 25 per cent of their deposits. Banks in other "reserve cities" (including at present about forty cities) are also required to maintain 25 per cent reserves, but their deposits in the national banks of the central reserve cities may be counted for one half of this amount. In all other places the banks are required to hold a 15 per cent reserve, three fifths of which may consist of deposit accounts in banks in central reserve cities or other reserve cities. In all cases the funds kept by the banks with the United States treasurer for the redemption of their notes are counted as part of their legal reserves.

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[1] Including all kinds of United States money except subsidiary silver, minor coins, and national bank notes.

The New York Money Market. — Under the operations of this system the cash reserves of the national banks are centered in New York. This appears clearly in Table I, which shows that on the date specified more than a third of the cash reserves of the 6544 national banks in the United States were in the vaults of thirty-eight New York banks.[1] These figures do not, however, convey an adequate idea of the national importance of the New York bank reserves. New York is the great wholesale market for foreign exchange, the chief center of gold movements to and from Europe, the principal importing and exporting center for commodities, — in short, the chief market place of the continent and the focus of financial operations. All state banks, private banks, and trust companies of importance find it to their advantage to maintain deposit accounts in New York, both for their own use, and in order

TABLE I

DEPOSITS AND RESERVES OF NATIONAL BANKS: AUGUST 22, 1907[1]

LOCATION	NO. OF BANKS	DEPOSITS[2]	RESERVE		CLASSIFICATION OF RESERVE		
			Amount[2]	Ratios[3]	Lawful money in bank[2]	Due from reserve agents[2]	Redemption fund[2]
New York	38	825.7	221.3	26.8	218.8	.....	2.6
Chicago	14	262.9	66.6	25.3	66.1	.....	0.5
St. Louis	8	116.8	27.6	23.6	26.8	.....	0.7
Other reserve cities	306	1423.4	362.3	25.5	190.3	165.7	6.3
Country banks ..	6178	2627.2	443.5	16.9	199.6	226.7	17.2
Total	6544	5256.1	1121.4	21.3	701.6	392.4	27.3

[1] Compiled from Report of the Comptroller of the Currency, 1907, pp. 222-224.
[2] Millions of dollars.
[3] Per cent.

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[1] The bulk of the deposits of out of town banks were in from twelve to twenty banks which make a specialty of this kind of business.

that they may supply New York exchange to their customers. Even the deposit accounts of national banks in New York are in the aggregate considerably larger than the amount they are allowed to count as part of their reserves.

All together the deposits of other banks constituted more than half of the $825,700,000 of deposits in New York national banks in August, 1907. Moreover, something very much like the reserve system obtains among other than national banks, the banks in smaller places keeping deposits in national or other banks in larger cities, which in turn keep deposits in New York. The trust companies, and some of the state banks[1] until recently, kept in general very much smaller reserves in their own vaults than were required of national banks, — a fact which made the strain on the New York bank reserves all the greater. But recent legislation in New York has raised the reserve requirements of state banks and trust companies.

Like an inverted pyramid upon its apex, the great structure of bank credit in the United States rests, in large measure, upon the money reserves of the New York banks. Every important change in the demand for money or credit in any part of the country has an effect on the New York money market; similarly, every important disturbance in the New York money market affects financial conditions throughout the country.

The central reserve system leads to a great economy in the use of money, and it seems to be a natural and necessary feature of modern banking, for something like it is found in all of the leading commercial nations, — although, in Europe, the central reserves are kept in one great bank in each country. Some dangers seem to attend its use in the United States, but these are in large measure attributable to other features of our banking system, chief among which are the dominance of speculative influences in the New York money market, the independent treasury system, and the lack of elasticity in our bank note issues.

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[1] Savings banks keep reserves that average for the United States only four fifths of one per cent of their deposits. On account of the nature of their business, which is not banking in the commercial sense, they are a negligible factor in this connection.

Speculation and the New York Money Market. — As Table II shows, a large and increasing proportion of the loans of New York banks are not based on "commercial paper"; that is, on the notes and bills and exchange that arise in the ordinary course of business, but are either time loans on collateral security or demand loans, nearly all of which are secured by collateral. Most of these collateral securities are the stocks and bonds of corporations, and the loans, especially the demand or "call" loans, are used for the greater part in financing speculation in such securities. This system is partly responsible for the excessive and useless expansion of speculation over and above the amount that is necessary to secure the best results for the economic interests of the country. Here we are concerned, however, with its effects on the money market.

TABLE II

LOANS AND DISCOUNTS OF NEW YORK NATIONAL BANKS ON SPECIFIED DATES[1]

(In millions of dollars.)

CHARACTER OF LOAN	1890	1896	1901	1906
On demand	102	110	279	303
On time, with collateral security	43	69	129	149
On time, secured by commercial paper	152	144	203	249

[1] Compiled from Reports of the Comptroller of the Currency.

The supply of call loans depends primarily on the amount of the *surplus reserves* of New York banks; that is, the excess of the reserves over and above the legal minimum of 25 per cent of the amount of the deposits. If the weekly statement of the clearing house banks[1] shows a relatively large surplus reserve, this means that the banks can safely expand their loans, — the knowledge of which fact has a stimulating effect on speculation. If, however, the surplus reserve is low, the banks are bound to restrict their loans of all kinds and to "call" some of their demand loans.

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[1] Some of the banks in the clearing house are state banks, but by the rules of the clearing house these were required to maintain the same reserve as national banks even before recent legislative enactments.

When the reserve is below the legal limit demand loans have to be called in large quantities in order to enable the banks to meet pressing demands for credit on the part of their regular customers.[1] The precipitate calling of demand loans by some banks simply increases the demand for credit at other banks, which in turn have to curtail their loans. Such a condition of the money market leads to a depression in the price of speculative securities, which is increased by the forced sales of securities in order to obtain the money funds that had previously been lent on them; the fall in the price of securities leads brokers to demand more "margins" from the customers for whom they have bought securities, and it leads the banks to demand more securities as collateral for their outstanding loans. Under such conditions the interest rate on call loans sometimes goes as high as 125 per cent, or even higher.[2]

If the ruling prices of speculative securities have been higher than industrial conditions would warrant, such a disturbance of the money market is apt to be long continued, and might easily develop into a general financial crisis. The call loan market is essentially

[1] The rigidity of the New York bank reserves is itself an element of danger to the money market. The Bank of England protects its reserves when they are threatened by the simple process of raising its discount rate. The effect of this is to restrict the loans of other banks as well as of the Bank of England to the more necessitous borrowers. Under our national banking law limiting the rate of interest, further loans have to be stopped absolutely when the reserve goes below the legal minimum. The New York bank reserve is accordingly a real reserve only in the sense that it makes it possible for the banks to meet extraordinary demands for ready cash. So far as the extension of credit is concerned, it is not a reserve, but a dead line. In practice the law is not rigidly observed, a warning from the comptroller of the currency being the only penalty exacted for a temporary deficit in the reserves. Nevertheless the reserve does not often fall more than one or two points below the legal minimum. The sudden curtailment of loans which the rigidity of the reserve entails is one of the things that tends to convert an incipient panic into a real panic.

[2] That is, the rate on what may be called *marginal* call loans, effected at the stock exchange by bankers' agents, or by individuals or corporations. Many banks continue to make call loans to their regular customers at such times at rates not exceeding 6 per cent. Under normal conditions the rate on call loans is lower than the rate on time loans. For the period 1901–1906 the bank rate on call loans averaged 3.3 per cent as against an average rate of about 4.5 per cent on time loans. Excessive variability is the chief characteristic of the call loan rate. *Cf.* W. A. Scott, "Rates on the New York Money Market," *Journal of Political Economy*, Vol. XVI, pp. 273–298.

speculative, and it is unfortunate that the condition of the supply of credit for the normal commercial needs of the country should be periodically unsettled on account of this fact. In no other great money center of the world do call loans occupy the important place that they do in New York.[1]

The Independent Treasury System.—The United States government is to a very large extent its own banker. It keeps its own money in its own strong boxes, quite after the fashion of a mediæval monarch. The strong boxes in this case are, however, the vaults of the treasury in Washington and of nine sub-treasuries located in important cities. Apart from the fact that the government revenue and the government expenditures are naturally not distributed evenly throughout the year, the government has the further difficulty that a close balance of revenues and expenditures for any given year must be wholly accidental. Even if the federal budget were carefully and scientifically constructed, as it is not, the public revenues would be liable to uncertain fluctuations, — a result in part of the importance of customs receipts among them. The government, furthermore, receives most of its income in money, not in bank credit instruments. When a surplus accumulates in the government treasury, that much money is taken out of circulation, which reduces the bank reserves, and contracts the amount of bank credit available.

The government is permitted, however, by the national bank act of 1863 to deposit money in selected national banks. Some secretaries of the treasury have made little use of this privilege, but in recent years such deposits have become more common.

Until 1902 banks had always been required to deposit government bonds with the federal treasury as security for federal deposits, but in that year and again in 1906 Secretary Shaw offered to accept approved state and municipal bonds in lieu of a certain amount of government bonds, on condition that the latter should be immediately used as security for increased note issues. In 1897 only 168 banks were government depositories. In 1907 there were 1255, which held on June 20 of that year $167,000,000 out of a total treasury balance of $422,000,000. Part of this increase is attributable to the effect of a law enacted in 1907 allowing custom receipts to be deposited in banks. Previously to this deposits could only be made from the proceeds of internal revenue duties and miscellaneous receipts. The Aldrich act of 1908 provided for the payment of one per cent interest on all government deposits except the active checking accounts.

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[1] The control of groups of powerful banks by great chains of "financial interests" is another anomalous condition of the New York money market. For an account and criticism of this situation as it existed in 1903, see C. J. Bullock, "The Concentration of Banking Interests in the United States," *Atlantic Monthly*, Vol. 92, pp. 182–192.

The government has, on several occasions, come to the rescue of the banks by cash purchases of its own bonds. The decline in the market price of government bonds in periods of financial stringency makes these purchases relatively advantageous to the government. The periodic shifting of government deposits to localities where money is most needed, the temporary deposit of gold in New York banks equal in amount to their engagements of gold for transportation from Europe, and even the arbitrary withdrawal of government money from the banks when it was "not needed," in order that it might not be made the basis of speculative activities but kept till the time when it "was needed," [1] have been recent developments in the relation of the treasury to the money market.

In favor of this system as at present developed it may be said that a surplus in the government treasury constitutes a real cash reserve, the wise use of which by the secretary of the treasury may possibly avert a serious crisis. But there are dangers in intrusting so much financial power to one man. If used without discretion it is bound to do more harm than good. Moreover, some of the recent treasury operations have not been free from the suspicion of favoritism to certain banks. It is to be feared, too, that the knowledge that the government surplus will, in time of necessity, be put at their disposal, will tend to encourage unsound banking by relieving the banks of the proper responsibility for the maintenance of their own reserves. All in all it seems probable that a definite and known policy with regard to government deposits is better than the recently developed system of uncertainty and arbitrary action.

The Movement of Money. — The demand for loanable funds varies locally, according to the business conditions that exist in different parts of the country. These differences make loans worth more in some localities than in others, and result in some shifting of bank credit. New York banks, for example, sometimes invest in "out of town" commercial paper when this is more profitable than employing their funds at home. More frequently, interior banks place loans in New York, either through their correspondent banks there, or by the purchase of securities from note brokers.

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[1] See Finance Report, 1906, p. 41.

This shifting of credit, however, is unimportant as compared with the movement of money itself. Money is continually flowing from New York to the interior and from the interior to New York, according as it can be more profitably employed in bank reserves in one place or the other. Similar movements take place between the various cities of the country. This movement, it will be noted, is not one that is apt to disturb financial conditions. On the contrary, it tends to prevent extreme local fluctuations in money market conditions by leading to the expansion of credit where it is most needed, and similarly, to the contraction of credit where it is least needed.

There is another kind of money movement, however, which is not so fortunate in its effects upon the money market. The amount of money needed as an actual medium of exchange varies for different seasons and for different localities. The demand for money to serve as the basis of credit in bank reserves and the demand for money as an actual medium of exchange are different and competing demands. When more money is needed as a medium of exchange, reserves have to yield and credit has to be contracted.

The most important movement of this sort is in response to the annual demand for money to be used in "moving the crops." Harvest expenses are very largely wages, and these have to be paid in cash. Many farmers, moreover, insist on receiving money payments when they sell their crops. The cotton crop of the South and the grain crop of the West necessitate the conversion of bank deposits in those regions into money, and to the negotiation of loans on the security of the crops, the proceeds of which are also taken in cash. The banks in these sections of the country in turn convert their deposits in other banks into money, and in large part this money is obtained, directly and indirectly, from the New York bank reserves. The movement of money from New York to the South and West usually commences in August of each year and continues through November, when the return movement sets in, continuing usually till February. Despite the fact that the New York bankers are forewarned of this movement, it always reduces their surplus reserves and leads to stringent and often precarious conditions in the New York money market, — conditions which are frequently reflected in difficulties in the money market throughout the country.

Elastic Currency. — To the arbitrary flow of money to and from the treasury, and to its movement to and from the interior, there must be added the movement of gold between this and other countries. This will be discussed in another place; it is sufficient to note at this point that this external money movement is at the same time a cause and effect of changing money market conditions.

That these money movements affect the supply of bank credit as they do is partly attributable to the inelastic character of our bond-secured bank currency. Under the provisions of the national bank law that have been described, the variations in the amount of bank notes outstanding bear a close relation to variations in the price of government bonds, — and these variations are affected by many other things than money market conditions, and in recent years have been very small.

As will be seen in Table III, the creation of the two per cent bonds, payable in 1930, stimulated the issue of bank notes, because the federal tax is only one fourth of one per cent semiannually on bank notes secured by two per cent bonds as against one half of one per cent on notes secured by bonds paying a higher rate of interest. The relative stability of the amount issued in more recent years is noticeable, what increase there was being a natural

TABLE III

AMOUNTS OF BANK NOTE CIRCULATION SECURED BY SPECIFIED CLASSES OF BONDS: 1900–1907[1]

SECURITY	March 13, 1900	Oct. 31, 1903	Oct. 31, 1904	Oct. 31, 1905	Oct. 31, 1906	Oct. 31, 1907
Loan 1908, 3's . .	$56,164,820	$1,797,580	$1,922,940	$2,215,540	$3,273,700	$6,473,080
Loan 1907, 4's . .	130,302,250	2,797,200	5,857,500	4,050,350	25,124,650	. . . .
Loan 1925, 4's . .	14,697,850	1,410,100	1,791,600	4,465,000	4,602,100	10,732,900
Loan 1904, 5's . .	21,996,350	718,650	. . . .	. . . .	. . . .	. . . .
Loan 1891, 2's . .	20,490,150	. . . .	. . . .	. . . .	. . . .	. . . .
Consols 1930, 2's	. . . .	376,003,300	416,972,750	483,181,900	492,170,650	532,543,550
Panama Canal . .	. . . .	. . . .	. . . .	. . . .	14,482,080	17,245,380
Total	243,651,420	382,726,830	426,544,790	493,912,790	539,653,180	566,994,910

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[1] From Report of the Comptroller of the Currency, Finance Report, 1907, p. 390.

result of the increasing number and size of banks. Nor does the amount of note issue respond to any marked extent to the regular seasonal demands for money to move the crops or to the less regular operations of the treasury department or of the foreign exchanges.

Students of banking problems have for many years thought that it would be better to allow the national banks to issue part, if not all, of their notes on the security of their general assets, thus placing them on the same basis as deposits. It is clear that if this were done any sudden increase in the demand for money as a circulating medium might be met by the creation of bank credit in the form of bank notes, or by the shifting of bank credit from the form of deposits to the form of note issues. "Asset banking," as this is called, is used in Canada, and enables the banks there to furnish money for crop moving purposes without endangering their reserves. Most of the great national banks of continental Europe also issue notes on the security of their general assets.

To achieve real elasticity it is necessary to provide for the ready contraction of note issues when the special demand for money is over as well as to provide for their ready expansion in time of need. It seems probable that this could best be accomplished under the difficult conditions that prevail in the United States by a system similar in some ways to that governing the *Reichsbank* of Germany, whereby all note issues above a certain amount are subject to a special tax. This should be coupled, however, with a more adequate mechanism for redeeming the notes than the present one, and it would be desirable to graduate the tax according to the amount of the excess note issues outstanding.

The first tangible result of years of discussion of this subject in Congress and elsewhere was the Aldrich act of 1908. This measure supplements the existing system by permitting banks which have outstanding notes secured by government bonds equal in amount to 40 per cent of their capital to increase their circulation in one or both of two ways. First, on the security of approved state, county, or municipal bonds deposited with the treasurer at Washington, such note issues being restricted to 90 per cent of the par value of the bonds. Second, through the voluntary organization of "National Currency Associations," which are to be composed of not less than ten banks in contiguous territory whose combined capital is not less than

$5,000,000. Banks in such associations can issue notes to an amount not exceeding 30 per cent of their capital and surplus on the basis of securities deposited with the association, if the securities are approved by the association and by the comptroller of the currency. Such securities may be (1) bonds of the kind that may be used for the extension of note issue under the alternative plan already mentioned, in which case the issue may be 95 per cent of the par value of the bonds, or (2) two-name commercial paper of not over four months' duration, or the bonds or other securities of corporations, in which case the issue must not exceed 75 per cent of the face value of the securities. The association is responsible for the maintenance of the redemption fund of each of its members. A bank's entire note issue must not exceed its capital and surplus.

The extra note issues authorized by the Aldrich act must not at any time exceed $500,000,000 in the aggregate, and are taxed at the heavy rate of 5 per cent per month for the first month and 1 per cent for each additional month up to a maximum of 10 per cent. Very little can be expected from the Aldrich act in the way of securing elasticity of the currency. The first of the two alternative methods may possibly be helpful, but the excessive rate of taxation will tend to prevent its extensive use save in extreme emergencies. It is difficult to organize national currency associations save in important financial centers, and the provision for the use of corporate securities only projects into the field of note issue what is already an unfortunate tendency of deposit banking in the United States. The Aldrich act may afford some relief in periods of the most extreme stringency in the money market but it does not advance us very far toward the desired goal of a currency that will automatically expand and contract with business needs. Some favor the issue of such a currency by the government instead of the banks, but this would be undesirable. There are no such points of contact between the government treasury and the needs of the business world as exist in the case of the banks. Government paper currency can be controlled in amount only by arbitrary methods. It is by very nature inelastic.

A Central Bank. — The great national banks of European countries, such as the Bank of England, the Bank of France, and the Imperial Bank of Germany, combine the functions of our independent treasury system, the general note issue functions of our national banks, and the function of the New York national banks as custodians of the central reserve. That is, they have a practical monopoly of the privilege of issuing notes;[1] they hold the government funds and act as fiscal agents of the government, and they hold the ultimate banking reserves of their respective countries.

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[1] In England and Germany some other banks than the central banks have a limited right to issue notes, but this is only a survival, a vested right, which in various ways is gradually being extinguished.

The United States Bank (1791–1811) and the Second Bank of the United States (1816–18[illegible]) were institutions of this kind. In each case Congress refused to recharter the bank at the expiration of its original twenty-year charter. In each case, also, this occurred when the country was temporarily under the dominance of a strong democratic sentiment opposed to political or financial centralization in any form. Jealousy on the part of state banks was, however, the immediate cause of the demise of the first United States bank, while the second succumbed to the still more potent hostility of Andrew Jackson. There are many who think that the abandonment of the independent treasury system and the reestablishment of a great central reserve bank would be the best solution of our currency difficulties. Such a bank might very properly be limited to the field of issuing notes, and receiving the deposits of and making loans to the government and other banks.

The Present Position of State and Private Banks. — The figures in Table IV give only a partial idea of the present position of banking in the United States, for while they are complete as to national banks, there were, in 1907, over 4000 other banks which failed to make reports to the comptroller of the currency.

TABLE IV

NUMBER OF BANKS AND AMOUNT OF DEPOSITS IN SPECIFIED KINDS OF BANKS: 1907[1]

	NUMBER OF BANKS	DEPOSITS
State banks	9,967	$3,068,600,000
Savings banks	1,415	3,495,400,000
Private banks	1,141	151,100,000
Loan and trust companies	794	2,061,600,000
National banks	6,429	4,322,900,000
Total	19,746	$13,099,600,000

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[1] From Report of Comptroller of the Currency, Finance Report, 1907, p. 418.

"State banks," in the narrow sense, include only corporations chartered by the individual states to conduct a general commercial banking business. In a broader sense savings banks and trust companies incorporated under state law may be said to be state banks.

Savings banks do not usually do a commercial banking business; that is, they are not engaged in the sale of bank credit in a form that can be used in making payments. Their deposit accounts are not usually transferable by means of checks. They receive deposits of small savings and invest them in long time securities, such as real estate mortgages and bonds of various sorts. They perform an important social service by stimulating saving and by increasing the financial power of small investors through concentrating and combining their resources. Savings banks are organized either as corporations or as mutual societies managed by a board of trustees acting for the depositors. The latter type is especially common in the eastern states. The advantages of savings banks are less available in the rural districts than in the cities, — a fact which is perhaps the strongest argument for the establishment of postal savings banks by the federal government.

Trust companies were at first organized to take charge of trust funds and to act as executors and administrators of estates. They have, however, developed the functions of both savings banks and commercial banks, and have even entered such specialized banking fields as foreign exchange and the underwriting of corporation securities. They have thus the character of free lances in the banking field. Their banking functions have developed so rapidly that in many states they have been put under no such rigid control as is exercised over state and savings banks.

Private banks are of two very distinct types. Some are small unincorporated banks in country towns. Others are great concerns in the financial centers which deal in investment securities, buy and sell foreign exchange, finance great corporate undertakings, and, in some cases, act as brokers in the stock market.

It is impossible, in fact, to draw a definite line between "banking" and other financial undertakings. Building and loan associations, private money lenders, note brokers, life insurance companies, etc., frequently perform functions which are very much like some kinds of "banking." But banking as the institution which converts personal credit into bank credit in the form of deposit accounts and bank notes is a clearly defined thing, and has a distinct economic significance of its own.

QUESTIONS

1. Do you make a loan to the government when you receive greenbacks as money?

2. Compare the history of the *assignats* of the French revolution with the history of the bills of credit issued by the Continental Congress.

3. Explain the various items in the published "statement" of a national bank.

4. Because a national bank can buy interest-bearing government bonds and use them as security for its own issues of paper money, advocates of government paper money issues have alleged that it gets "double interest on its money." Is this true?

5. How should one compare the profitableness of issuing notes with the profitableness of extending deposit credit?

6. What restrictions does your state impose on state banking corporations?

7. Why would wheat not make a satisfactory money commodity? iron? platinum? diamonds?

8. Would it be possible to maintain a seigniorage of 10 per cent on United States gold coinage?

9. Report on the following questions not answered in this chapter: (1) What is the "limit of tolerance"? (2) On whom does the loss due to the wear of gold coin fall? (3) To what extent are different kinds of United States money legal tender?

10. If the United States had adopted the free and unlimited coinage of silver in 1896, how would prices have been affected?

11. Is the actual standard of value pure gold or gold of standard fineness?

12. What elements of truth are there in the statement that "coins get their value from the government stamp"?

13. Would it be possible to have a standard of value that could not be used as a medium of exchange?

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CHAPTER XVI

OTHER PROBLEMS IN MONEY AND BANKING

Crises. — Crises are frequently recurring phenomena of current economic life. They are of all degrees of severity, but are generally characterized by a scarcity of bank credit, a sudden drop in prices, industrial depression, lack of employment for wage earners, and kindred symptoms.

Crises are frequently attributed to "over production," or, when that expression is criticised (because human wants are never fully satisfied) to "under consumption." The two expressions are different ways of describing the same thing, and both are misleading because they put the emphasis in the wrong place. Production and consumption have to do with *quantities* of things and their fitness to satisfy human wants. Crises spring from mishaps in the valuation of things; they relate to what might be called the dollars and cents aspect of economic life. It is difficult, even impossible, for observers to analyze all the factors entering into a particular crisis, and it is even more difficult to formulate a theory of crises that will be of general applicability. There are some important things about crises, however, that are relatively well known, and these will form the basis of our discussion.

It is a significant fact that crises generally occur only as sharp interruptions of periods of business prosperity, when credit is abundant, prices relatively high, and employment plentiful. Whatever may be the cause of a period of exceptional business prosperity, it is apt to contain within itself the seeds of its own destruction. The point will appear clearly if we put together two conclusions that were reached in the preceding chapter: first, that the supply of loanable funds in the form of bank credit is a function of two variables, — the supply of personal credit and the supply of money available for bank reserves; second, that personal credit is based on the probable amount of future incomes and probable future value of property.

Suppose, for example, that business conditions are prosperous and promise to continue so, and that there is a plentiful supply of money in the bank reserves. Expected prices and expected profits are large, expected interest payments seem certain. The power to get this future income depends, however, upon the possession of land, capital, goods, franchises, and other privileges, the established business relations that give rise to "good-will values," or upon the possession of income-yielding securities, such as mortgages, bonds, stocks, etc. Under such conditions, these things command good prices in the market and may easily be hypothecated, either formally or implicitly, in order to secure purchasing power, — bank credit. The bank credit thus created is put into further investments of capital and into the creation of further business opportunities. These things serve in turn, so long as their income-yielding power seems certain, as the basis of further extensions of bank credit, and thus the process of business expansion continues in a cumulative fashion. An extensive period of increasing prosperity of this kind is, however, scarcely possible unless the supply of money is increasing; for bank reserves as well as the amount of expected personal incomes condition the supply of purchasing power.

Any one of a number of things may be sufficient to precipitate a panic under such conditions. The whole business structure may fall to pieces through sheer topheaviness. That is, so much production to-day is indirect, so large a share of productive effort is devoted to forwarding in indirect ways the production of goods that will be ripe for human use only in the comparatively distant future, that the mere operations of supply and demand among business men themselves may maintain prosperous business conditions for some time. But in the long run the maintenance of the values of producers' goods and privileges depends on the demand, and hence on the income, of ultimate consumers. Wages do not usually rise as rapidly as prices in periods of business expansion. This simple fact may in itself keep the average purchasing power of consumers from expanding rapidly enough to furnish a solid support for the growing structure of capital values.

Crop failures may precipitate a panic by diminishing the purchasing power of those engaged in agriculture, and, possibly, by reducing exports and thus necessitating the taking of gold from the bank reserves to ship to Europe in payment for our imports. When the credit situation is at all strained the failure of one important bank may be enough to precipitate a panic. The bank's creditors are prevented from meeting their own obligations; the solvency of others is in turn dependent upon them, and thus losses in expected and often already hypothecated income are transmitted from firm to firm and from industry to industry in a constantly widening circle.

In fact, whatever may be the immediate cause of a panic, it is bound to grow, in a condition of inflated capital values, with tremendous rapidity. The collapse of credit leads to forced sales of property in order that credit obligations may be met. These lower property values, lessen the security on which credit is founded, and render banks less able and less willing to make loans. Moreover, the hoarding of money, which is apt to be a feature of a panic, has a destructive effect on bank reserves. In a serious panic the liquidation of obligations has to work itself out. Then the industrial process starts afresh, with lowered values, and with property rights shifted, in some measure, to creditors.

Crises seem to be unpreventable so long as competition and the credit system dominate in industry. Yet there are some recent developments that may make them less frequent, and possibly less serious.

The "integration of industry," whereby a whole series of productive processes, from the production of the raw material to the sale of the finished product, are brought together under one management, decreases the number and complexity of credit relations between producers, and tends to prevent the undue expansion of those parts of the productive process that are farthest removed from the consumer. The strong position of the steel industry in the United States is a case in point. The improvements in the bargaining power of wage earners resulting from their organization have enabled them partly to prevent the widening of the gap between wages and prices in prosperous times, as recent American statistics show. On the other hand, crop failures are and always will be a factor of uncertainty. The lack of an elastic currency is also an element of danger, but this can and should be remedied.

The Economic Effects of Changes in the Value of Money. — It has already been suggested that an increase in the amount of money available for bank reserves leads to the expansion of credit, stimulates business, and as a result usually increases prices, — temporarily, at least. The same results are achieved, although in not the same way, by a depreciation in the value of money, such as comes from a sudden change in the standard of value, or from the introduction of irredeemable paper money as the medium of exchange. Without understanding the exact process we know that prices are gradually increased under such conditions, there being an unmistakable tendency to adjust them to the change in the "dollar" or other unit of the medium of exchange.[1] The rising prices stimulate business by increasing profits. Profits are increased because most of the expenses of production are incurred before the goods are sold so that the rise in prices increases the margin between prices and the expenses of production, and because, moreover, some of the expenses of production do not usually rise as rapidly as do prices. An expansion of business activity of the kind already described is apt to be the result, and this is not generally soon restrained by insufficient bank reserves, for depreciated money is usually, though not always, money that is coined or issued in large quantities.

That periods of prosperity induced in this way are inevitably short-lived and usually end in severe crises does not make them any the less real. Nor should the fact that such artificial conditions of business enterprise are apt to be accompanied by excessive speculation and other unhealthy features blind us to the fact that they accomplish some good. The encouragement given to venturesome undertakings leads to the trial of new methods of production, to the development of new natural resources, to undertakings of vast proportion, to a general freeing of industrial organization and methods from the restraints of habit and tradition. The foundations of modern large-scale industry in the United States were laid in the period between the Civil War and the panic of 1873. The period of state bank note inflation preceding the panic of 1837 was a period in which the industrial map of the United States was almost wholly changed, and, in the long run, for the better.

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[1] Possibly the effect upon other prices of the increased prices (measured in the depreciated money) that have to be paid for imported commodities and that are received for exported commodities is the key to this problem, just as it was undoubtedly the chief cause of the rise of prices to fit the bullion value of coins from which seigniorage had been taken. This is the explanation of the rise of prices under the greenbacks suggested by Professor W. C. Mitchell, the historian of that movement.

A rapid increase in the supply of standard money may have a similar effect. A tremendous expansion of international trade followed the gold discoveries in California and Australia. In the sixteenth century, increases in the supply of the money metals, economic writers are agreed, hastened the fall of the mediæval economic system. The almost unparalleled development of industry and industrial organization in the United States since 1897, must, with its good features as well as its bad, be attributed in part to the increased supply of gold.

Business prosperity, however, does not always coincide with the real economic welfare of the masses of the people. If prices are rising faster than money wages, real wages are obviously declining. A period of falling prices is very apt to be a period of increasing well-being for those whose incomes are wages or salaries, although here we have to remember that even if daily or weekly wages do not fall so rapidly as prices, an increase of unemployment may affect total yearly incomes adversely.

The Standard of Deferred Payments. — The relation of changes in the purchasing power of money to long-time debts and credits has been suggested in another connection. If prices increase, the principal of a loan represents less purchasing power at time of repayment than at the time the loan was made. If prices decrease, the reverse is, of course, true. In periods of cheap money agitations the additional burdens imposed upon debtors in a period of decreasing prices are emphasized. An important function of money, then, is found in its use as a standard of deferred payments.[1]

As Professor Irving Fisher has shown, there is a partial compensation for the injustice worked to debtors or creditors by changing money values in the fact that the interest rate varies inversely with the value of money. If the value of money is increasing and promises to continue to increase, money lenders are forced by competition to offset the expected increase in the value of a loan by accepting a lower interest rate. When the value of money is decreasing, the expected decline in the value of the principal causes a higher rate of interest to be charged. So far then as the increase in the value of the principal is discounted in the interest rate at the time when a loan is made, to that extent is the debtor's claim of injustice unfounded. The decline in the interest rate as prices decrease makes it possible, moreover, for debtors to pay off their old obligations with money funds borrowed on more favorable terms. We may expect that less emphasis will be given to the question of the standard of deferred payments in future periods of declining prices, because American farmers are becoming in increasing numbers lenders rather than borrowers of money. Corporation bonds are taking the place of farm mortgages as the most significant form of long-time credit instruments.

Index Numbers. — Changes in the purchasing power of money are indicated statistically by the use of index numbers.[2] The prices of a number of important commodities in some one year, or their average prices for a term of years, are taken as the basis of the computation. The price of each commodity in each year covered by the statistics is then stated as a per cent of its price in the basing year or years. The series of per cents thus obtained are called *relative prices*. These relative prices are then combined into typical prices, or index numbers for each year. Most frequently a simple arithmetic average of the various relative prices for a given year is used as the relative typical relative price. Sometimes a *weighted* arithmetic average is used. This differs from the simple average in that the relative prices of the more important commodities are counted more than once in making up the average, — the precise amount of weight given to them being fixed according to the importance of the commodities to which they relate. Weighting is not of great practical importance unless the list of commodities used is very small, or unless the index number is to be used for some special purpose, — such as to show changes in the cost of living, where relative prices are weighted according to the average distribution of the expenditures of families in the wage-earning classes.

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[1] From the analysis in the preceding chapters it should be clear that money serves also as (1) the medium of exchange and measure or denominator of value, (2) the standard of value, (3) the basis of bank credit. The first of these functions is performed by all money; the second function only by standard money and bullion; the third by all money that can be lawfully used in bank reserves. Legal tender money, and, if there are differences in the value of different kinds of money, the cheapest legal tender money, serves as the standard of deferred payments. Before the development of credit facilities one's purchasing power did not depend so much on his property as on his own stock of ready cash. An important early function of money was, accordingly, that of a store or reserve of value or purchasing power.

[2] Cf. the table on p. 240.

A simple and useful way of obtaining a typical price is to find the *median*. The median is the relative price which divides all of the relative prices for a given date into halves, — one half being lower and one half being higher than the median. Less used are the *mode*, — the relative price that occurs most frequently in a given year, — and the geometric average, — the *n*th root of the product of the relative prices of *n* commodities. Much has been written about the relative advantages of the different kinds of averages, but the questions involved are highly technical. Whether one kind of average is better than another usually depends upon the character of the data and the use that is to be made of the results. Statisticians now emphasize the importance of knowing the *distribution* as well as the trend of price changes. That is, in order to know whether the average is really typical of the different relative prices we should know how closely most of them approximate to it. The range of the variation of the different relative prices from the average might, for example, be comparatively small below the average and comparatively large above it. There are various ways of measuring and stating the distribution of prices.

Wage changes as well as price changes can be measured in index numbers. Weighting is of more importance in the case of relative wages than in the case of relative prices, because the number of men represented in the data for single series of relative wages (such as those in a given occupation in a given establishment) is constantly changing.

Index numbers are available for the United States for the period since 1860. For the period 1860–1880 Mitchell's[1] are the best; the period from 1890 to the present is covered by the United States Bureau of Labor,[2] and for the gap from 1880 to 1890 Falkner's are available.[3] *Dun's Review* and *Bradstreet's* also publish tables of price changes.[4]

Some writers have suggested the possibility of a *tabular standard of value*, to be maintained by frequently changing the value of the money unit in accordance with the showings of an officially kept system of index numbers. To do this by periodically altering the amount of bullion in standard money would be impracticable, while to abandon the use of a standard commodity and to attempt to regulate prices by issuing fiat money and controlling the amount in circulation would be, as we have seen, chimerical. *A tabular standard of deferred payments* might be put in operation by laws providing for the increase or diminution of the principal of debts according to changes in prices. It is probable, however, that this would be satisfactory to neither debtors nor creditors. The really essential thing is to have a commodity standard of value that shall be as stable as possible, and to maintain the convertibility of all other forms of money with it. With gold as the standard of value, and with all other forms of money redeemable in gold, changes in prices are not apt to be rapid enough to work much injustice to either debtor or creditor. The compensating influence of changes in the interest rate must also be taken into account. The question of the grievances of debtors and creditors has been overemphasized as compared with the really important economic problems growing out of changes in the value of money. These are, as we have seen, first, the effect on business enterprise, and second, the effect on real incomes as distinguished from money incomes.

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[1] In his *Gold, Prices, and Wages under the Greenback Standard.*

[2] In various numbers of the *Bulletin of the Bureau of Labor.*

[3] In "*Aldrich Report*" *on Wholesale Prices, Wages, and Transportation,* Senate Doc., 32d Cong., 2d Session, No. 1394.

[4] For an exhaustive account of various index numbers and other price statistics see Laughlin, *The Principles of Money*, pp. 171–211.

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Value of Money. — We have not as yet answered one very important question, and that is, "What determines the value of money?" Now by the "value of money" we cannot mean anything but the purchasing power of money. There is no such thing in fact as "the general purchasing power of money," although we have found it convenient to use that and similar expressions. Money has, in reality, a large number of different values, measured by the different quantities of different things that it will purchase. If the price of wheat is one dollar per bushel, then one value — the wheat value — of money is a bushel per dollar. Similarly, the purchasing power of money in sirloin steaks may be four pounds per dollar. But how are we to blend sirloin steaks, wheat, and other things into one concept? Index numbers do not tell us what the general value of money is; they simply reveal average variations in the different values of money. The concept of the general value of money is simply a useful abstraction, based on a broad view of all its different specific values.

When we fix our attention upon *changes* in the various purchasing powers of money, however, we are able to make a distinction between changes that are widespread and fairly uniform, and changes that affect only one or two commodities. For example, a new invention may decrease the price of a particular commodity, without affecting the prices of other things except through the shifting of demand from other things to the commodity in question, — an effect which would usually be slight so far as the price of any one of these other things is concerned, as the demand would probably be shifted from many different lines of consumption. Or, if the demand for the commodity in question is relatively inelastic, a diminution in its price may increase the demand for other things. But there are, on the other hand, price fluctuations which are widespread and fairly uniform, and these we call, with substantial accuracy, changes in the value of money.

We have already discussed the nature of price fluctuations due to the use of a discounted medium of exchange, like the greenbacks, as well as the temporary fluctuations in values, — especially capital values, — that spring from alternating periods of prosperity and depression in business. But what are the underlying causes of general changes in the value of money? — the kind of changes we referred to when we mentioned the decreasing value of the monetary standard itself as a stimulus to business enterprises?

Leaving theory aside, we know from experience that, other things being equal, the value of money will decrease when the supply of the standard commodity increases rapidly.[1] We know that the value of money units sometimes decreases when the world's supply of the standard metal is being increased only slowly. We then say, and it is only a reasonable inference, that the value of money depends, other things being equal, on the supply and demand of the standard commodity. But this is only an empirical generalization. It leaves us ignorant of the way in which a value equilibrium is really struck between a certain amount of gold and a certain amount of another commodity.

In analyzing the relation of the supply and demand of other commodities to their prices, we assumed, for simplicity of the analysis, that the value of gold was not changing. That is, we assumed that the *general level* of prices was not changing, and so really limited our analysis to the way in which the values of all commodities except gold vary as compared with one another.

The marginal utility analysis, which formed the basis of our explanation of the shifting of demand from one commodity to another, does not help us to explain the demand for gold as money. Marginal utility springs from the capacity of things to satisfy individual wants, and money does not directly satisfy a single human want, except the abnormal wants of the miser. The subjective values we set upon money units are only the reflected values of the things that money will buy for us.[2]

Our standard money commodity is, however, a commodity that has other than monetary uses. Gold ornaments and other articles made from gold are subject to the law of diminishing utility just as other things are. From the estimates of the director of the mint, it appears that in recent years from one fourth to one third of the world's annual production of gold finds its way into industrial uses. The United States mints and assay offices refine nearly all the crude gold bullion produced in or brought to this country, and allow the depositor to take the proceeds in money or in bars of gold for industrial use, as he prefers. There is thus a constant balancing between the industrial and monetary uses of gold.

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[1] We refer here to a more permanent and thoroughgoing change in the prices than that resulting from the business expansion following an increase in the supply of money available for bank reserves.

[2] When we speak of the utility of money we use the word "utility" in the sense of usefulness, rather than of want-satisfying capacity.

In effect the monetary units which can be got by the sale of gold jewelry, etc., for money are balanced against the monetary units which can be got by the simple conversion of bullion into coin.[1] Consumers, on the one hand, are balancing the marginal utility of gold jewelry, etc., against the marginal utility of other things that they can buy with the same number of money units. Producers, on the other hand, are balancing the relative profitableness of producing articles made from gold and articles made from other materials. The valuations placed on gold in its industrial uses, where a direct comparison with the values of other commodities is possible, in this way fix a standard to which the value of gold as money must approximate.

There is another way in which society makes direct comparisons between the value of gold and the value of other things. Mining, like agriculture, is subject to the law of increasing expenses, and the tendencies of prices to equal marginal expenses is true for both industries. Not only are there marginal mines, mines which it just pays to operate, but in the most productive mines there are margins, — certain depths, for example, beyond which the expense of mining more than eats up the value of the product. Through the operators of mines, society is continually comparing the values of the labor and the capital goods used up in the production of gold with the value of the things that can be bought with the produced gold. If the gold produced at the margin will purchase things which consumers value less than they value other things which could have been produced with the use of the same amount of capital and labor, capital and labor will gradually be shifted from its marginal use in gold mining to the production of other things. Here, then, as in the case of the balancing between the monetary and industrial uses of gold, we have a comparative valuation of gold and other things.

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[1] The expense of transforming bullion into jewelry, etc., is left out of account, as it does not affect the real point under consideration.

Several years ago the Bureau of Mint undertook an investigation into the relation of the expense of gold mining to the amount of gold produced. Some of the conclusions reached are worth quoting in this connection: —

> In every mining district there are mines producing at good profits, mines producing at small profits, mines barely paying expenses, and mines operated at a loss, but with the hope that they will do better. Every increase in costs would submerge the latter more deeply, add to the list of the unprofitable, and probably close some of them. . . . A higher scale of working costs will bring losing experiments to an earlier conclusion, reduce profits, and make mining ventures generally less attractive, and thus diminish the output.[1]

To summarize our conclusions: The law of marginal utility applies in the industrial uses of gold. The particular form of the law of normal value that is operative in agriculture also holds true in gold mining (although it has to be stated in a somewhat different way.) An increase in the supply of gold diminishes its marginal utility in industrial uses, that is, diminishes the valuation put on gold as compared with other commodities. This is bound to affect the value of gold as money, on account of the ease with which the supply of gold can be shifted to one use or the other. The resulting increase in prices may be slow and irregular, but it is none the less certain. The rise of prices, however, cannot continue indefinitely. The increase of prices and wages brings increasing expenses in gold mining. The marginal part of the supply of gold will normally be cut off, — a process which will continue until a rise in the value of gold diminishes the expense of producing it.

These suggestions are not put forward as an exhaustive statement of all the relations between the supply of gold and its value, although they are possibly the most important ones. Increases in the quantity of other kinds of money and improvements in the mechanism of credit, for example, probably have an effect on prices similar to that of an increase in the quantity of gold, in that they economize the use of that metal. Silver and paper money do not take the place of an *equivalent* amount of gold, however, because some gold has to be held in reserve to maintain their convertibility.

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[1] Report on the Production of the Precious Metals,[2] 1904, p. 41.

TABLE I

Production of Gold in the World since 1841

(From 1841 to 1885 the estimate is from a table of averages for certain periods, compiled by Dr. Adolph Soetbeer; for the years 1886 to 1906 the production is the annual estimate of the Bureau of the Mint.)

Period	Annual Average for Period	
	Fine Ounces	Value
1841–1850	1,760,502	$36,393,000
1851–1855	6,410,324	132,513,000
1856–1860	6,486,262	134,083,000
1861–1865	5,949,582	122,989,000
1866–1870	6,270,086	129,614,000
1871–1875	5,591,014	115,577,000
1876–1880	5,543,110	114,586,000
1881–1885	4,794,755	99,116,000
1886–1890	5,461,282	112,895,000
1891–1895	7,882,565	162,947,000
1896–1900	12,446,939	257,301,100
1901	12,625,527	260,992,900
1902	14,354,680	296,737,600
1903	15,852,620	327,702,700
1904	16,804,372	347,377,200
1905	18,268,696	377,647,700
1906	19,366,550	400,342,100

The so-called "quantity theory" of the value of gold money has been much discussed in recent years. This is the doctrine that, other things being equal, prices vary inversely as the amount of money in circulation. In reality many different theories of the value of money have been put forward under the name of the quantity theory. The theory just outlined, for example, may be called a conservative form of the quantity theory. Some statements of the theory are open to objection because they (1) place too much stress on the very doubtful problem of the exact mathematical ratio between variations in the quantity of money and variations in prices, or (2) confuse the "measure" or "denominator" of value with the standard of value, or (3) fail to recognize the necessity of a commodity standard of value, and consequently attach no significance to the influence of the industrial use of the standard commodity on its value. The most extreme form of the quantity theory is that which forms the foundation of the argument for the possibility of fiat money.

The Increase in the Production of Gold. — Although probably more gold was produced between 1850 and 1875 than from 1492 to 1850, yet, as Table I shows, the production of gold in any three years since 1896 or in any two years since 1902 was as great as the total production in the period first mentioned. Most of this great output of gold, as Table II indicates, comes from relatively few countries. At present the British empire supplies over one half and the United States (including Alaska) nearly one fourth of the total product. The causes of this enormous increase were, in part, the opening up of new gold fields in South Africa, Canada, Alaska, and Colorado, and in part the improvements in methods of extracting gold from low grade and refractory ores, in which connection

TABLE II

RECENT PRODUCTION OF GOLD IN DIFFERENT COUNTRIES[1]

(In thousands of kilograms)

COUNTRY	1897	1900	1904
Africa	88	13	129
Australia	97	111	132
United States and Alaska	86	119	121
Russia	35	31	37
Canada	9	42	25
British India	12	14	18
Mexico	11	13	19
China	9	8	7
All others	26	35	35
Total	355	385	523

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[1] From *Journal of Political Economy*, Vol. X, p. 580, and Finance Report, 1907, p. 363.

TABLE III

MONEY IN THE UNITED STATES, JUNE 30, 1907[1]

MONEY	IN TREASURY	IN NATIONAL BANKS, MAY 20, 1907	IN OTHER BANKS AND IN CIRCULATION	TOTAL
Metallic				
Gold bullion	$137,288,361	....	....	$137,288,361
Silver bullion	6,628,024	....	....	6,628,024
Gold coin	767,070,900	$186,001,697	$375,695,674	1,328,768,271
Silver dollars	486,539,538	12,298,117	69,412,327	568,249,982
Subsidiary silver coin	8,674,817	12,797,039	108,980,362	130,452,218
Total metallic	1,406,201,640	211,096,853	554,088,363	2,171,386,856
Paper				
Legal tender notes (greenbacks)	4,410,961	160,877,239	181,392,816	346,681,016
Legal tender notes (of 1890)	12,465	....	5,975,535	5,988,000
National bank notes	14,546,565	33,314,954	553,626,148	601,487,667
Total notes	18,969,991	194,192,193	740,994,499	954,156,683
Gold certificates	78,352,570	237,234,420	362,837,879	....
Silver certificates	5,565,775	82,382,636	387,828,589	....
Total certificates	83,918,345	319,617,056	750,666,468	....
Grand total	....	724,906,102	2,045,749,330	3,125,543,539

Finance Report, 1907 p. 328.

the development of the "cyanide process" has been of special importance.[1] Dredging for gold in the beds of rivers which drain gold-yielding lands, is a very recent development that promises to be of considerable importance. Notwithstanding the decrease in the value of gold, the bulk of the gold produced in California to-day is from ore bodies that twenty-five or thirty years ago were generally considered worthless.

The effects of this enormous output have been felt in both Europe and America in a general increase of both prices and wages. There are some who expect that the value of gold will continue to depreciate for a long time in the future. Account must be taken, however, of the automatic check which the increase in wages and prices is bound to put on the production of gold by increasing mining expenses. On the other hand, still further economies in productive methods are possible.

QUESTIONS AND EXERCISES

1. Report on the Note Issue systems of Canadian banks, the Bank of England, the Bank of France, and the Imperial Bank of Germany.
2. Make a diagram showing the weekly changes in the total reserves and the surplus reserves of New York clearing house banks for any recent year. (Statistics may be obtained from the annual *Financial Review*, the *Commercial and Financial Chronicle*, the *Banker's Magazine*, or other financial journal.)
3. Construct a simple index number for wholesale prices, in one city, covering the period of a few weeks. (Use the market quotations of a daily paper as data.)
4. If half the gold in the world were destroyed, would prices be doubled?

REFERENCES

(See also references for Chap. XV.)

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[1] "There are many mines in operation now at a profit which could not have been worked at a profit ten years ago. There has been an important addition to the gold and silver product by the recovery of these metals from lead and copper ores by modern processes. The most important gains seem to have come, however, through economies in management, particularly by enlarging the scale of operations and by more complete extraction of the values from the ores treated." — Report on the Production of the Precious Metals, 1904, p. 41.

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CHAPTER XVII

INTERNATIONAL TRADE

The subject of international trade brings us to an examination of exchange from a new viewpoint. In principle, international trade does not differ essentially from other kinds of trade. In the last analysis it amounts to an aggregate of exchanges between pairs of traders. But in discussing international trade we lay the emphasis upon the aggregate rather than the specific exchange, take a larger view of commercial relations, try to determine how great districts of the world combine to supply one another's wants, and analyze the machinery by which commerce overcomes the obstacles of trade restrictions and the difficulties growing out of the use of different monetary units in different parts of the world. Much of the confusion met with in this branch of economic thought is due to mere forgetfulness of the elementary axioms of exchange, and for this reason it is desirable, even at the cost of some repetition, to reëxamine briefly the nature and function of trade.

Nature and Advantage of International Trade. — The function of trade is to create the utilities of time and place. Industry itself, " production " in the narrow sense of the word, is likewise confined to the creation of utilities — form utilities, principally. Trade, therefore, is as beneficial, as truly productive, as agriculture or manufactures. The American people are just as truly engaged in production when they buy books from Germany as when they cut down their own spruce trees and manufacture them into paper for the "yellow journals."

Trade is not only productive in the sense that it creates utilities, but it is also an indispensable part or process of the division of labor. Upon this self-evident fact it is unnecessary to dwell. It is, however, desirable to recall the fact that specialization of function is profitable even to those individuals or classes which are plainly superior in general productive efficiency. A successful lawyer does not write his own letters, even though he is an expert operator on the typewriter. He specializes in that occupation in which he has the greatest advantage, and hires some one to write his letters for him.

This rule — frequently referred to as the *law of comparative costs* — holds for communities and nations, as well as for individuals. If, in Holland, it costs ten times as much to produce a barrel of flour as a yard of cloth, while in America it costs only six times as much, it will be profitable for the Dutch to confine themselves to the production of cloth, and for the Americans to confine themselves to the production of flour; even though both flour and cloth could be produced more cheaply in America than in Holland.[1]

If this conclusion is true, it follows that so long as the comparative costs of producing goods vary among the different nations of the world, so long there will be some international trade. And, furthermore, since it is impossible to conceive that the costs of producing all kinds of transportable goods will ever be exactly proportional in the several countries of the world, it is evident that international trading is bound to continue. It can be permanently suppressed only by raising freight charges to a prohibitive level, or by deliberately manipulating customs tariffs so as to suppress every new international trade connection as soon as it springs up, or by the complete destruction of industry in other parts of the world; and none of these possibilities is ever likely to be realized. The ideal of an exclusive home market is a delusion. The last thirty years have witnessed a remarkable increase of protection throughout the civilized world, but international trade has increased by leaps and bounds.

International trade, then, is productive, profitable, and for practical purposes irrepressible. The tariff controversy can never be settled until these elementary truths are thoroughly appreciated. On the other hand, it is equally plain that these facts do not settle the tariff controversy. Ordinarily, trade is mutually advantageous to both parties; and in one sense it is always so. If Smith trades x to Jones for y, Smith must have wanted y more than x, and Jones must have wanted x more than y, so that the temporary happiness of both is increased by the transaction. But this is not, as has sometimes been intimated, sufficient reason for permitting all kinds of trade and condemning all kinds of trade restrictions. If Smith is an ignorant Indian, x a blue fox pelt, Jones an unscrupulous trader, and y a pint bottle of adulterated whisky, the "sense" in which this trade is adjudged "mutually profitable" is scarcely distinguishable from nonsense. The logic which approves unrestricted trading of this sort would also sanction unrestricted child labor and the contemptible extortion of the "loan shark" who charges a desperate widow 200 per cent a year on a small loan which the woman in her ignorance and necessity must secure. Trade restrictions have existed as long as international trade itself, and the real problem is not whether there should be any restriction, but when and where particular varieties of restraint are justifiable.

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[1] Assuming, as Mill points out, that capital and labor will not emigrate *en masse* from Holland to America, and that freight charges are small.

Restriction of International Trade. — In ancient times among many nations, such as the Hebrews and Chinese, contact with other peoples was feared and foreign trade was practically prohibited. In Greece and Rome the greatest thinkers entertained a profound contempt for trade, based in part upon the belief that in exchange one party is usually cheated; and this prejudice was partially justified by the character of the primitive trader who was part sailor, part pirate, part merchant, and took all the profit he could possibly extort in every transaction as insurance against the great risks of his calling.

At a later date, in the middle ages, when commerce between the semi-independent cities of western Europe increased, trade came to be highly prized by the average citizen, although it was still condemned by the philosophic schoolmen; and it was regulated in the most exclusive spirit.

"Every effort was made to keep trade as much as possible in the hands of native citizens. For example, the Venetians forbade the Germans from engaging in trade with the East by way of Venice, and the citizens of Lübeck strove to keep the Baltic trade from the Dutch. . . . Foreigners were mistrusted and partnerships with them were forbidden. Foreign visitors were restricted in many ways in their commercial dealings with native citizens. Many occupations were closed to them; the length of their sojourn and the number of their visits were limited; they could not pass a town without exposing their wares for sale and paying the required market dues. The wants of the consumer took precedence over those of the producer or merchant. At the weekly markets consumers could supply their needs before the baker or merchant was allowed to make purchases. There was a community interest in the supplies of necessities, and often their exportation was prohibited. The trade of neighboring peasants was restricted to the home city, and laws regulating price, weight, measure, and quality were common. This restrictive municipal policy was very much relaxed at the great fairs which were held periodically in various parts of Europe."[1]

In the early modern period mercantilism became dominant. Commercial policies were controlled by the desire to get and keep the precious metals. At first the exportation of specie was prohibited; merchants trading abroad were compelled to bring home cash for the goods they had taken out with them; foreign merchants trading within the home country were compelled to exchange their cash for domestic goods before they departed; exportation — except the exportation of raw materials needed in the manufacturing industries — was encouraged; and importation — except in the case of the precious metals and skilled artizans who were encouraged to immigrate — was discouraged or prohibited. When it became apparent that the supply of money had to be secured through international trading, the greatest emphasis came to be laid upon the "favorable balance of trade"; and means, ranging all the way from bounties to war, were vigorously employed to secure the carrying trade for native ships. In a large historical sense mercantilism was merely a cry elicited by one of the sharpest of the world's great growing pains. It was a symptom more than a cause or an explanation. It marked the establishment of the division of labor on a territorial basis, and recorded the replacement of the independent economy of the middle ages by the modern economy of exchange. For the latter, money was indispensable, and had to be secured at any cost.

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[1] Professor G. M. Fisk, *International Commercial Policies*, pp. 15–16.

The mercantilist period has been followed — after a brief *laissez-faire* reaction in some countries — by the period of protection in which we still linger. The extensive taxation of imports still continues; but trade prohibitions, export and transit duties, have been largely abandoned in the more advanced countries. In the United States export duties are prohibited by constitutional law. But few nations have wholly risen above mercantilist practices. Canada prohibits the importation of oleomargarine and similar substitutes for butter; Great Britain prohibits the importation of sugar from countries paying bounties on its production; Switzerland levies an export tax on cattle, hides, and skins shipped from the country, while Norway and Sweden tax the exportation of timber; and Russia still attempts to control the Persian trade by levying transit duties upon goods passing through her territories destined for Persia. But export and transit duties in their old mercantilist uses have nearly disappeared.

Extensive use is still made of export taxes for revenue purposes in South America and the Orient; and trade prohibitions based upon grounds of sanitation, morals, and what Americans call the "police powers," are increasing rather than decreasing. Turkey, for instance, levies an ad valorem tax of 1 per cent upon all exports; and in general the most important tropical products are still subject to export taxes. As for trade prohibitions the continued necessity for their occasional employment is illustrated by our federal law authorizing the President to suspend the importation of any article which he regards as "dangerous to the health or welfare of the people of the United States." For a more complete enumeration of modern export duties and trade prohibitions, see Fisk's *International Commercial Policies*, Chap. VI.

Mercantilist ideas die hard, and current discussion of international trade by reputable legislators and intelligent journalists is still permeated with fallacious notions which had their origin in the conditions and economic philosophy of the seventeenth century. One of these notions, the idea that there is something essentially favorable in an excess of exports, and something essentially unfavorable in an excess of imports, demands careful consideration.

Balance of Trade. — Suppose, for purposes of discussion, that the United States succeeded in prohibiting imports for a long period, while at the same time it succeeded in selling a large amount of merchandise to foreign purchasers. What would happen? Evidently a large portion of the money of the world would accumulate in the vaults of American bankers, interest rates would fall, — possibly to rise again later, — and eventually, if the process continued long enough, the prices of American commodities would ascend to such a level that foreign nations would be unable to continue buying in this country. At this point, evidently, our hypothesis breaks down, and we are forced to conclude that the original supposition was an impossible one.

This hypothetical case and its *reductio ad absurdum* are sufficient to establish certain important practical conclusions. The first is that a country cannot permanently sell goods for money alone. If it produces large quantities of the money metals, it will regularly sell those metals for the goods and services of other nations. If it produces no gold or silver itself, it will secure them through exchange; although, even in this case, gold and silver are likely to constitute only a minor part of its imports. Perhaps the gravest error one can commit in studying an international trade balance is to treat it as an exchange of goods for money. It is not even an exchange of goods for goods. The true international balance is one of claims against obligations, of credits against debits. The complete statement is that the goods, moneys, and services rendered by one country to other countries, plus its claims and credits of all kinds, will be balanced by the goods, moneys, and services received by the same country plus its debts and obligations of all kinds. Or, to put the matter concretely, we must include, along with the exports and imports of merchandise and bullion, loans which the country makes or receives, annual interest payments on loans and capital invested abroad, repayment of loans or the purchase of securities, earnings of ships, insurance premiums, and commissions of all kinds for international services, governmental expenditures in foreign countries for diplomatic service, payment of subsidies and war indemnities, remittances of immigrants, expenditures of travelers, and a thousand and one other items, all tending, according as they depress or raise the price of foreign exchange, to bring about the importation or exportation of gold for the occasional balancing of the account.

A mere glance at this list of items entering into foreign trade is sufficient to puncture the old mercantilist idea that a "favorable balance of trade" or an excess of merchandise exports brings about an increase of the money supply. This idea is as fully refuted by commercial statistics as by economic analysis. In the thirty-three years, 1874–1906, for instance, we had a large excess of merchandise exports in all except four years, but there was an excess of gold imports in only sixteen years. So, similarly, there is no necessary truth in the statement which we hear so often, that our present "favorable balance" indicates that the United States is settling its indebtedness to foreign capitalists, repurchasing American securities owned abroad, and thus bringing the control of American enterprises more completely into the hands of Americans. It may mean this, to be sure, but it may also merely mean that we are paying England in goods for carrying and insuring our exports, or that foreign owners of American securities are taking in this form the annual interest or profits due to them. The recent excess of exports may thus represent the continuance of indebtedness rather than its liquidation. For the same reasons an "unfavorable balance of trade" or an excess of merchandise imports is open to a variety of different interpretations. It may mean that foreign capital is investing more heavily in the country under discussion, or that this country is taking, in the form of consumable commodities, interest and profits on investments which it has previously made abroad, or that it is selling its holdings in foreign enterprises and taking the proceeds in the form of consumable goods. An "unfavorable balance" of trade may thus be, in reality, highly encouraging; and a "favorable balance" indicative of national waste and extravagance. The precise meaning of any particular balance can only be determined after the most careful study, and no dependence should be placed upon the offhand interpretations of casual investigators. The great truth is that there must be some sort of balance between the credits and liabilities of any country, and that in practice a nation must be willing to buy if it is anxious to sell.

A scholarly analysis of the foreign trade of the United States, with a careful interpretation of the meaning of the trade balance at various periods, may be found in the *North American Review* for July, 1901, from the pen of Professor C. J. Bullock. Professor Bullock's explanation of the balance in two or three periods may be given, in order to illustrate the variety of factors which must be taken into account when dealing with this subject. In the period 1789–1820 the imports of merchandise and specie exceeded the corresponding exports by $511,000,000, and our obligations were further increased by interest on foreign capital invested in the United States to the amount of $200,000,000 approximately. This total indebtedness of something over $700,000,000 was offset by the earnings of the American merchant marine, estimated at about $800,000,000 for the period in question. "So far, then, from the country being drained of its money in payment for the balance of imported merchandise, the banks held not less than $20,000,000 of specie in the year 1820; while Gallatin and Crawford estimated that there had never been more hard cash in circulation."

In the decade 1831–1840, owing to the high prices current in this country, imports exceeded exports by $159,700,000; the imports of specie also exceeded the exports by $50,650,000; and the earnings of our merchant marine, $90,000,000, sufficed only to reduce this "unfavorable balance" to about $120,000,000. This remaining balance is accounted for by new foreign investments in the United States, in particular by foreign purchases of state bonds. "Our large imports of merchandise and specie had been made necessary by the movement of foreign capital toward the United States."

In the decade 1851–1860 the merchandise imports again exceeded the exports by $355,800,000; the net amount due to foreign creditors was somewhere between $100,000,000 and $130,000,000; and to offset these adverse balances our merchant marine earned in this period only $158,000,000. The remaining balance in this case was covered by our large excess of specie exports, which amounted to $417,608,000, and was due to the discovery of gold in California. "The United States had become one of the leading gold-producing regions, and the course of the exchanges was inevitably altered."

In the periods briefly described above, the striking factors in our international trade were, respectively, the earnings of our merchant marine, new investments of foreign capital in the United States, and large specie exports following the discovery of gold in California. In the last period, from 1874 to 1896, our exports both of merchandise and specie greatly exceeded our imports. "This meant simply," concludes Professor Bullock, "that the country had assumed its normal position as a debtor nation on the various items of invisible exchanges, and was paying annually something like $122,500,000 on such accounts."

In concluding this aspect of the subject the student should be warned that trade statistics are full of pitfalls for the unwary and can safely be handled only by experts. Exports are sometimes overvalued, imports are generally undervalued; some countries state values at the point of departure (thus excluding cost of carriage); other countries state values at the point of entry (thus including cost of carriage); some countries make special efforts to exclude values of reëxported goods from their statistics; others make little or no effort to eliminate such nominal items; while the complete prevention of such reduplication is probably impossible. Eminent statisticians are now making earnest effort to harmonize the trade statistics of the various countries of the world, but it will be a long time before trustworthy conclusions concerning the real significance of the so-called balance of trade can be drawn by the average student.

Foreign Exchange. — The preceding discussion makes it clear that, compared to the enormous values of the goods exchanged in international trade, only a small amount of money is used. As in domestic trade, purchase is set against sale, debt canceled by credit, and money employed only for the occasional settlement of balances. This cancellation of offsetting claims is effected by the banks and brokers who engage in foreign exchange; and a brief description of their economic function becomes necessary at this point. For it should never be forgotten that the international banker has been in the past and will be in the future an indispensable factor in the development of foreign trade. Without his good offices the vast international traffic of the world would be but a shadow of what it now is. It need hardly be said, moreover, that in its detailed operation the work of foreign exchange is exceedingly complex, and that only a sketch of the essentials of the process can be given here.

As illustrative of the process, let us take the important case of our trade with England. Ordinarily, an American exporter who has sold goods to England draws an order — a *bill of exchange* — on the English debtor, directing him to pay the claim at some specified time and place in London. American importers, on the other hand, commonly pay their foreign balances by buying bills of exchange, or drafts on London, and sending them to their English creditors. In this way American debts and credits are balanced in London without transferring any money at all, except occasionally to settle the balance of indebtedness.

Bills of exchange differ from ordinary drafts in that the latter are usually drawn on a bank, while the bill is drawn on a commercial creditor. They are usually accompanied by bills of lading, insurance receipts, certificates of weight and origin, and

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all the documents necessary to give the purchaser of the bill full title to the goods until the bill is accepted or paid. They are accordingly referred to as "documentary bills" or "commercial bills," to distinguish them from "bankers' bills" and other instruments of international credit described hereafter. Documentary bills are freely negotiable, passing from hand to hand by indorsement, and gathering strength with each new indorsement. It is important, also, to note the difference between "sight bills" and "long bills," the former calling for payment upon presentation, the latter for immediate "acceptance" by the drawee and payment after thirty, sixty, or ninety days. The price of ninety-day bills, for instance, is fixed by the price of sight bills and the discount rate in London.

We may now enlarge our simplified illustration to something like life-size. Documentary bills drawn by exporters or creditors all over the country are sold by the drawers to bankers, usually New York bankers, who may be called the "wholesalers of exchange." The sale may be either direct or through exchange brokers, "the jobbers of exchange." These documentary bills are sent by the New York banks to their foreign correspondents for collection (in the case of sight bills) or acceptance (in the case of long bills). The balances thus built up abroad by the New York banks constitute the fund against which they draw their own bills. These are sold directly or through smaller banks — the "retailers of exchange" — located in all parts of the country. Foreign exchange is sold in a great variety of forms — bankers' drafts, travelers' checks, travelers' letters of credit, commercial letters of credit, cable transfers, and the like — descriptions of which may be found in the references cited at the end of the chapter.

The illustrations used above, while typical of a large part of the foreign exchange of this country, fail to represent adequately the complexity which marks some of the interactions of international credit. An illustration of the more complex class is found in the "three-cornered" or "triangular exchange." We import from, very much more than we export to, South America. A part of the debit balance — though possibly not the larger part at the present time — is settled by the transmission of London drafts to our South American creditors, who can use them advantageously in the settlement of their debts in Europe. London thus "clears" for the world as New York "clears" for America and Paris for France. Just as the net balance of our foreign trade is struck in New York, so final international balances are cleared or settled in London, although London's preëminence in international exchange is now not so striking as it has been in the past.

The question next arises how the price or rate of exchange is determined. The factors controlling the price or rate of exchange are as numerous and as difficult to trace as the influences which affect the price of any economic good of world-wide bargain and sale. However, to facilitate discussion, we may classify them as: (*a*) the amount of pure gold in the monetary units which are to be exchanged, (*b*) the cost of shipping gold, and (*c*) "general credit conditions."

An English pound sterling contains as much fine gold as 4.866 American dollars, and when exactly this amount must be paid in New York for a draft or order for one pound payable in London, exchange is said to be *at par*. Sterling exchange and German exchange are usually quoted in dollars and cents, *i.e.* the amount of American money required to buy one pound or four marks respectively. Consequently, they rise or become dear when exchange mounts above par. French exchange, on the contrary, is usually quoted in francs, the number of francs purchasable with one dollar; and it is consequently cheap when above par and dear when below par. Exchange between the United States and countries with silver or paper standards lack the steadying influence of a par determined by the actual mass of fine gold in the respective standards of value, and hence fluctuates much more than exchange between countries on a gold basis. In order to be as brief and clear as possible, the following discussion will be confined to exchange between countries on a gold basis.

Fluctuations in the rate of exchange depend upon the "general credit conditions" mentioned above, but it is plain that upper and lower limits to these variations are established by the actual cost of shipping gold. Suppose, for a moment, that it costs three cents

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to transport $4.866 worth of gold bullion between New York and London. Except under unusual circumstances, then, sterling exchange cannot rise above $4.896, nor fall below $4.836. These limits are frequently spoken of as the "gold points," "specie points," "shipping points," or "export and import points"; and it is necessary to mention them because of their frequent employment in discussions of foreign exchange. But they are usually defined in much too definite terms. The cost of shipping gold varies with the size of the shipment, with freight, insurance, and interest rates, and in some degree with the steamer and the season of the year. Furthermore, gold is so important as the basis of bank credit in all parts of the world, that it is frequently imported regardless of the rate of exchange. During the war between Russia and Japan, for instance, the Bank of France imported large quantities of American gold in this semiarbitrary way in order to protect reserves. The "gold points," then, while in one sense very real, represent extreme limits and are in themselves variable.

Within these extreme limits set by the cost of shipping gold, the rate of exchange varies according to general credit conditions, *i.e.* with the supply of and demand for bills of exchange, with interest rates here and abroad, and the innumerable forces which influence interest rates. Suppose, for instance, that our imports of merchandise in a given season greatly exceed our exports of merchandise. The demand for bills on London would greatly exceed the supply of bills against London, and the price of sterling exchange would rise very high if no other factors were involved. But it may happen at the same time that interest rates in New York are higher than in London, and under these circumstances our foreign creditors may prefer to lend their balances in New York in order to earn the high rate of interest obtaining there. The placing of these loans in New York will in turn reduce the demand for foreign exchange, and thus moderate both the interest rate and the rate of exchange.

This interaction of the domestic and the international money markets gives rise to a number of complex transactions which can only be suggested here. In discussing the sale of foreign exchange on page 293 above, American bankers were described as drawing against credit balances which they had built up abroad. Some bankers' bills, however, the so-called "finance bills," are drawn *in excess* of the foreign balances, and thus represent borrowings abroad. Finance bills are used (*a*) to tide over the time before a plentiful supply of documentary bills is available; and, (*b*) to take advantage of low discount rates abroad, *e.g.* in London, by borrowing in London and lending the proceeds in New York. Under the latter circumstances, finance bills payable in London at sixty or ninety days are sold in large quantities in New York, the sellers commonly covering their risk by the purchase of future drafts calling for the payment of the same amounts in London at the dates when the bills mature. The finance bill is thus one of many credit instruments used to bring the loanable funds of the world to the market where they will command the highest rate of interest; and it is hardly necessary to add that it assumes at times a highly speculative character. "Bankers sometimes purchase outright entire new issues of securities from corporations with proceeds obtained by the issue of finance bills, sell the securities to investors during the currency of the finance bills, and apply the proceeds realized through the sale of the securities to the payment of the bills at maturity."[1]

Regulation of the Gold Supply. — We may now return to the general topic of trade regulation, from which we digressed in order to consider the fundamental principles of foreign exchange. Historically, it will be remembered, many of the most important restrictions of trade have had as their object the regulation of the gold supply. And the movement of gold is still of great interest to the world of high finance because of the dependence of the volume of bank credits upon the gold reserves of the banks. But the preceding discussion would seem to make it clear that, ordinarily, there is little that the government can do, or needs to do, in the way of regulating the supply of gold. Through international trade and foreign exchange, the gold supply of the world is automatically distributed among the countries which need gold, in accordance with the intensity of their respective demands.

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[1] Margraff, *International Exchange*, p. 41.

In ordinary or normal times, the interest rate is the most powerful of the many influences which control the distribution of the gold supply. International banking houses keep funds in both the United States and Europe, and they are constantly shifting their money to the market in which it will earn the highest rate of interest. The means employed to move their funds may vary, as has been explained, all the way from the simple sale of foreign exchange to the actual importation of gold. So great is the influence exercised by the rate of interest over the gold supply that the Bank of England usually finds it necessary to do nothing more than raise its discount rate when it desires to attract gold to England or discourage its exportation.

The ordinary price level, that is, of merchandise, also exercises a great influence upon the rate of exchange and the movement of gold. When prices abroad are high compared with American prices, foreign countries increase their purchases, the supply of American bills increases, sterling exchange falls, and if it goes low enough, may cause the shipment of gold to this country. Such a condition of affairs, for instance, is likely to occur in the autumn months, when large exportations of American cotton, wheat, and agricultural products create a plethora of bills on London, and, other things being equal, depress the price of sterling exchange.

There can be no doubt, then, that the price level does influence the movement of gold. Whether the gold movement influences prices, however, is disputed. Some opponents of the so-called "quantity theory" of money hold that it does not, maintaining that before a drain of gold, for instance, could raise prices, it would so elevate the interest rate that the drain would be checked and gold be brought back. In their view, the interest rate acts as a safety valve, through whose variations any protracted gold movement which threatens to disturb the price level is checked and reversed before it acquires the momentum requisite to accomplish the larger task. Without attempting to decide the question, we may be sure at least of this relevant conclusion: that if the movement of gold continued indefinitely, prices would unquestionably be affected.

The gold supply thus adjusts itself automatically to the respective demands of the various districts of the world. This truth is important because it establishes a *prima facie* presumption against laws or policies which interfere with the normal distribution of the precious metals. This presumption is only an initial one, however. It does not follow that "artificial" interference with the distribution of the gold supply is never warranted. In times of war, panic, or severe financial stringency, extraordinary expedients for obtaining gold are sometimes used which, like the heroic remedies employed in desperate illness, are necessitated by the exigencies of the situation. In the undignified scramble for gold which often attends a panic, the country or the individual who stands aloof and waits for the normal laws of distribution to bring him "his" share of the gold supply, may have cause to regret his inaction. Nevertheless, it is true that such expedients, like strong drugs, are to be used with the greatest caution. They are frequently employed when the situation does not demand them, their use tends to become a fixed habit, and they seldom accomplish more than the postponement of the crisis.

An expedient of the kind described was employed by Mr. Shaw, then Secretary of the Treasury, in the spring of 1906. The following critical account of the action of the Secretary may be unjust to him, for it must be remembered that the financial stringency of the time threatened to become dangerous; but it illustrates in a striking way the subtle modern devices sometimes used to increase the supply of gold.

> "On April 14 it was officially announced for the first time, that the Secretary would allow any depositary bank which engaged to import gold to anticipate the arrival of the gold by withdrawing a like amount in cash from the Treasury upon pledge of saving-bank collateral as security. The sum so withdrawn was to be regarded as a temporary loan, and to be returned to the Treasury as soon as the gold arrived. In providing such an arrangement, Mr. Shaw virtually reduced the cost of importing gold by the amount of interest during transit, and raised by so much the 'gold import point.' In other words, he endeavored to make it profitable for the depositary bank, to import gold without waiting for sterling exchange to fall to the normal 'gold point.' . . . In accomplishing this, Mr. Shaw, temporarily eliminated, so far as the national banks were concerned, one item of expense in their foreign exchange operations. He gave them an advantage, for the time being, over all other firms engaged in the same business; and his action naturally

excited criticism among the private bankers who found themselves discriminated against. Critics also attacked his method of announcing his decision. It appeared that several days before the public or the other banks were informed of his intention, Mr. Shaw had seen fit to make private arrangements with two New York banks for gold imports under the plan . . . Nor was hostile criticism mitigated by the general publication at this moment of the fact, which had not been widely known before, that one of these same banks had been favored by the Treasury for several weeks, and possibly months, preceding, with virtually the same privilege under a different guise. This had been accomplished by allowing the bank in question to count as part of its reserve its importations of gold during their period of transit to New York. The imported gold had thus been made practically available as a basis for loans from the moment of its purchase abroad, and the item of time cost in such imports had been as completely eliminated as under the subsequently adopted plan. . . . His [Secretary Shaw's] statement issued at the time seemed to indicate that, in his opinion, the natural movement of gold was toward this country, but that the flow was being lured to other markets by the practices of European banks. He apparently hoped to overcome what he took to be an artificial diversion of gold from the United States by adopting, through the agency of the Treasury, measures similar to those which were being employed by the French and German central banks." [1]

[1] A. P. Andrew, *Quarterly Journal of Economics*, August, 1907, pp. 544–546.

(*For Questions and References, see the following chapter.*)

CHAPTER XVIII

PROTECTION AND FREE TRADE

WE are now in a position to review intelligibly the *pros* and *cons* of the modern tariff controversy. Because of the limitations of space, it will be desirable to confine the discussion almost wholly to American conditions, although most of the arguments are applicable to other countries as well.

The Case for Protection. — (1) One of the most captivating arguments for protection is the assertion that it promotes nationalism, which is held to be a good thing. Domestic trade, it is claimed, draws the citizens of a country together, while international trade is cosmopolitan and tends to their separation. Upon the creation of our federal government, state tariffs were abolished and their place taken by a national tariff designed partly to protect the whole of the country against the rest of the world. The introduction of national protection thus went hand in hand with the promotion of internal free trade; and Professor Schmoller even maintains the general thesis that, historically, this double process of internal abolition and external extension of tariffs marks the formation of new states, particularly federal states. Protection against foreign competition, he asserts, is thus historically coincident with the enfranchisement of internal trade; and has as its main object the creation of a strong national economic unity, without which permanent political unity, he thinks, is impossible.

(2) Government should, the protectionists say, foster infant industries in order to develop our natural resources and to produce diversity in industrial pursuits. It is admitted that protection is temporarily expensive, but so is the prohibition of child labor temporarily expensive. We prevent children from earning

a little while they are young in order that they may earn more when they are old. For the same reasons trades unions rightfully insist that apprentices shall be given a broad knowledge of the trade they are learning, although it is more profitable for the employer to have them specialize early in some narrow branch of the work. So, similarly, free trade prevents a nation from specializing too exclusively in its undeveloped stage, in order that it may the sooner arrive at industrial manhood.

Economists have generally admitted that there is a certain amount of truth in this argument. If an industry gets an early start in a given district, this locality is likely to retain its advantage because of the concentration there of capital and labor acquainted with the requirements and possibilities of the industry. Thus, 69.3 per cent of all the clocks manufactured in this country are made in Connecticut, for no other reasons that one can see than those suggested in the explanatory phrase — "the momentum acquired by an early start." And this localization of industry is artificially fostered by the habit, common to exporters all over the world, of selling abroad more cheaply than at home. The export trade seems to be universally coddled. Of course, such localized industries can be maintained only when the cost of transporting the article is small; and when other districts do not possess unusual natural advantages in the way of accessibility to superior raw material, power, or skilled labor. The census studies in the localization of domestic industries[1] seem to indicate that while the industrial inertia of which we have been speaking is an important factor, it is not so important as the opposing forces making for territorial diffusion of industry.

A most interesting illustration of an attempt to crush the "infant industries" of a competing nation is found in the effort of English manufacturers, after the War of 1812, to recover the American market of which they had been temporarily deprived by the long period of non-intercourse. "English manufacturers, eager to regain control of the lost markets, sent in shiploads of cotton and woolens and iron manufactures, which they offered on the most liberal terms to their agents in this country. The goods were taken on credit and disposed of at auction. The object was to undersell at any cost, and thus break down the infant industries. Lord Brougham justified the speculative character of this trade on the ground that 'it was well worth while to incur a loss upon the first exportation, in order, by the glut, to stifle in the cradle those rising manufactures in the United States which the war had forced into existence contrary to the natural course of things.'"[1]

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[1] Special Census Report, "Manufactures," 1905, Part I, p. cclx. *Cf.* also, Twelfth Census, "Manufactures," Part I, pp. cclx–ccxiv.

(3) Closely connected with the preceding arguments is a defense of protection based upon grounds of war and military necessity. Industrial independence, it is asserted, prepares a nation better for international war. There is unquestionably a great deal of truth in the argument. Certainly a wise nation will see to it that within its boundaries factories exist which can manufacture arms and all the necessary munitions of war. But success in war is not dependent upon arms and ammunitions alone. There must be a plentiful supply of money, and whatever use may be made of credit, enormous amounts of money must be raised by taxation.[2] But the source of taxation is a flourishing condition of private industry; and the industry of the average nation dependent upon international trade cannot flourish in times of war. The failure of the South in the Civil War was very largely due to her industrial dependence upon the cotton export trade. A sufficient diversification of industry to prevent industrial paralysis in times of war is, we believe, manifestly desirable.

(4) The home market argument for protection naturally follows. Much that is said in defense of this claim is childish or silly. One distinguished American economist seriously maintained that a country can remain permanently prosperous only on condition that what is taken from the soil shall be returned in manure and other kinds of fertilizers, and that this will be accomplished only when the products of the soil are consumed at home. A much stronger application of the argument, however, is found in the assertion that the home market is superior because it is a surer market. A foreign market is usually a precarious market. It is likely to be closed by war or by capricious changes in tariff policy. Protection is unquestionably expensive to the country

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[1] Coman, *Industrial History of the United States*, p. 185.

[2] For a classic explanation of the dependence of both public credit and taxation upon a flourishing condition of private business in times of war, see *Public Debts* by Henry C. Adams.

that protects, but it is worth paying something to keep industries in continuous operation.

(5) This brings us to the argument against "dumping." By dumping is meant the sale of products abroad at prices lower than those charged at home. Dumping arises in a variety of ways. Export bounties may be granted by the home country for the specific purpose of encouraging foreign trade; or a monopoly may find it profitable to dispose of a surplus abroad at prices which would be needlessly low in the highly protected home country; and, indeed, there is good reason to believe that many manufacturers for the export trade make it a practice to sell abroad at unusually low prices whenever they believe that their foreign market is threatened. As was stated above, the custom of "coddling" the export trade seems to be very general.

Now if the reduction of prices were permanent, the country in which the products are dumped would have no real cause for complaint. On the contrary, it might logically regard itself as the beneficiary of the costly bounties of the other nation. But real dumping is not, and in the nature of things cannot be, permanent. So far as it may be said to have a rational object, it aims to suppress competing industries by selling temporarily below cost; and when those industries are forced out of business, prices will be raised. So true is this that economists have generally indorsed import taxes and other temperate retaliatory measures designed to abolish dumping. Canada, for instance, has authorized the levy in such cases of a special dumping duty "equal to the difference between the selling price of the article for export and the fair market value thereof for home consumption." A few years ago the beet-sugar industry of France and Germany was so stimulated by bounties that even England, the principal dumping ground of the product, was forced to threaten reprisals in the shape of countervailing import duties. England's resolute attitude, it may be added, led finally to the virtual abolition of sugar bounties at the International Sugar Conference of 1903. In general, there seems to be ample justification for protective duties *that are honestly used* to ward off destructive attacks upon home industries which, if subjected only to legitimate competition, would be able to maintain themselves in the long run. It is evident that we have here returned to the substratum of truth contained in the infant industry and home market arguments.

Dumping has been more productive of arguments against protection than of arguments for protection, in the United States; and the opponents of protection have laid great emphasis upon the fact that many articles of American manufacture are sold abroad more cheaply than at home. That this is a fact is now generally admitted. But the protectionists maintain that most of this can be explained by the rebates allowed to American exporters under our drawback laws. Ex-Secretary of the Treasury Shaw estimates that in 1906, owing to these drawbacks, about $140,000,000 of American manufactures might have been legitimately sold abroad at less than domestic prices.[1]

(6) Intimately related to the arguments which we have been considering is the claim that the distribution of labor and capital of a free-trade nation is subject to the control, and indeed, one may say, to the whim and caprice of foreign nations. Industries differ in their effect upon the physique and character of the people who pursue them. The builder, the skilled engineer, the electrical worker, are benefited intellectually, physically, and morally by their occupations. But the tailor, the maker of ready-made clothing, and the sweat-shop worker are probably harmed rather than elevated by the nature of their employment. Now if foreign nations subsidize by protection and bounty the desirable industries, they may leave to the free-trade nation only those industries which the protected nations do not wish to maintain.

(7) Finally, protectionists appeal to the wage-earning classes with the argument that protection increases wages by diversifying industry and thus stimulating the demand for labor. Indeed the typical protectionist goes farther than this, and maintains that every American industry is entitled to an amount of protection equal to the difference between the wages which it pays and the wages paid by its most efficient foreign competitor. The latter variety of this argument seems to be plainly absurd, or at least obviously inconsistent with the initial assertion that protection raises wages. For, taken together, — and they are frequently advanced in company, — they result in this magnificently cumulative plea for ever increasing tariffs: protection raises wages, — but high wages

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[1] Leslie M. Shaw, *Current Issues*, Chap. XXI.

put the American manufacturer at a disadvantage in competing with foreign producers, — and the home producer must be protected to the extent of the difference in wages, — therefore every advance in protective duties laid for the benefit of the wage earner must be accompanied by an additional advance for the benefit of the manufacturer, — and so *ad infinitum.*

Arguments of Free Traders. — In the first place, we may dismiss a number of arguments which are so extreme as to weaken rather than strengthen the cause of free trade. (1) For instance, it is frequently alleged that protective tariffs violate the assumed natural right of every man to buy his goods where he will and sell his products wherever he sees fit, untrammeled by human laws. The futility of arguments based upon an assumption of natural rights has been sufficiently exposed elsewhere, and needs no elaboration at this point.

(2) It has also been claimed that protective tariffs in the United States are unconstitutional, but this argument is idle; it would be most unfortunate and anomalous if nowhere in our country were lodged the power to pass such regulations regarding international commerce as might appear to be required for the promotion of the public welfare. Furthermore, the charge of unconstitutionality does not correspond to the opinion of our best jurists, and it is very certain that we shall never see a supreme court in the United States which will venture to pronounce protectionism unconstitutional.

(3) In a similar vein protectionism has been called socialism, but this epithet is so generally applied to whatever a person incompetent to argue a cause does not like that it will scarcely terrify any one.

The really able arguments of free traders are those which aim to show either that protection actually does positive harm, or that it fails to accomplish its ends, or that those ends may be better accomplished without protection.

(4) The natural starting point of the free-trade argument, and the goal to which it inevitably returns is the theory of comparative costs laid down on page 285, the proposition that, so long as there are relative, not necessarily absolute, differences in the cost

of producing cheaply portable articles in various countries of the world, so long will there be international trade in those articles. Protective tariffs, therefore, merely divert capital and labor from intrinsically more productive to intrinsically less productive industries. To revert to our simile of the lawyer and his stenographer, protection aims to induce the lawyer to write his own letters, on the general grounds that lawyers are more intelligent people than stenographers, and if sufficient encouragement be held out to them they may, in the course of time, be educated up to the point of operating their own typewriting machines better than the stenographers whom they have previously hired.

Temperate advocates of "freer trade" do not contend that this law of comparative costs demonstrates the desirability of complete free trade under all circumstances. They admit that it may occasionally be profitable for a country to pay enormous bounties — this is what protection amounts to — for the development of certain industries. But they do contend that it establishes free trade as the general rule, every departure from which should require the most positive justification. More particularly, they hold, that at the present time, after a century of industrial development that obviates any military necessity for a further diversification of industry, capital and labor should be freely allowed to take themselves to those employments in which they can reap the largest natural reward, a reward, that is to say, which is not artificially enhanced by subsidies wrung from the general body of consumers.

(5) Moreover, it is not clear that protection is necessary to diversify industry in a country with such varied natural resources as the United States. The claims of the protectionists at this point may be tested by examining conditions within the wide borders of our own country, within which trade is wholly free. Now, if protection were necessary to foster infant industries and bring them to maturity, the manufacturing industries of this country would still be concentrated in the northern states of the Atlantic seaboard where they first gained a foothold. But they have not been so confined. The early establishment of the textile industries in New England has not prevented their recent development

in the South. Indeed, the so-called "center of manufactures" moved steadily west from south-central Pennsylvania in 1850 to central Ohio in 1900; and the increase, at the present time, is much more rapid in the South and West than in older sections of the country. Internal free trade has not prevented the diversification of industry in the United States, and has not delayed it longer than was desirable. For who shall say that the Dakotas and other typical agricultural states of the Union have greatly suffered from the absence of grimy factory towns and the slums which almost inevitably accompany them?

(6) The inevitable spread of manufactures throughout the United States suggests the essential weakness of the home market argument. International trade expands just as inevitably as the manufacturing area. It might be desirable to confine domestic producers to the more certain home market, which cannot be destroyed by tariff wars or international complications. But, as a matter of fact, home producers will seek foreign markets, and the nation that sells abroad must buy abroad. Since the Civil War we have protected home producers with extremely high tariffs. But in the last twenty-five years our foreign trade has increased at a rate unequaled by any of the other great commercial countries of the world.[1] Protective tariffs can cripple and harass and distract foreign trade, but they cannot permanently suppress it. No tariff can make the costs of producing all the articles common to commerce precisely proportional in all quarters of the globe.

(7) The protectionistic appeal to the wage earner seems particularly inconclusive. One reason for distrusting it is the double-faced way in which it is manipulated to suit the particular requirements of time and place. France wants protection in order to protect her low-paid workmen against the greater skill and efficiency of America's highly paid workers. The United States, on the other hand, must have protection in order to shield her highly paid employees from competition with the "pauper labor of Europe." When first used in the United States, the argument was that wages were already so high in this country as compared

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[1] Special Reports of the Census Office, "Manufactures," 1905, Part I, p. ccc. The specific period referred to is the twenty-five years, 1880–1905.

with England, that it was impossible for manufacturers in this country to pay the American rates and continue to compete with English manufacturers. Later, cause and effect, as related in the earlier syllogism, were reversed, and it was asserted that the high wages in this country were due to protection, from which it followed naturally that in order to raise wages higher, still more protection would have to be given.

We cannot arrive at any useful conclusions concerning wages, however, without considering the efficiency of labor and the productivity or favorableness of the environment in which the laborer works. The reason why American labor may receive higher wages and yet have nothing to fear from the competition of less highly paid workmen in Europe is found in the greater productivity of American labor (though this greater productivity may depend more upon the natural wealth of this country than upon any innate technical superiority of the American workmen). The average American workman is in no more danger from the goods produced by the "pauper labor" of Europe than the highly paid workman of Montana is threatened by the products of his less remunerated fellow-workmen of New England and the South. Labor competes with labor, not with commodities. Consequently, if it is really desired to protect labor, the logical way would be to place a tax on imported labor, or by other measures to reduce immigration. If this were done, those who desire labor would be obliged to pay heavily for it, as actually happened in England after the "Black Death" in the fourteenth century had killed off a large part of the laboring population. Indeed, if our tariff makers are sincerely anxious to benefit labor, they should, after rendering labor scarce and dear by restricting immigration, encourage the importation of such commodities as are consumed primarily by wage earners, in order that labor may secure an abundance of them cheaply.

No intelligent free trader would deny that there are now dependent upon protection many industries which pay high wages, nor that the sudden abolition of protection would throw many wage earners out of work. Their contention in the first case is merely that by taxation and by diverting capital and labor into naturally unproductive industries, protection lowers the general level of real wages. Their reply to the second point is that protection affects the industrial organism much as the alcoholic habit affects the human organism. To abandon the habit suddenly would certainly be painful and probably dangerous — but this is sufficient reason neither for increasing the dram nor delaying the gradual abandonment of the habit.

(8) Turning to the fiscal aspects of the question, the free trader asserts that there is little or nothing to be said in favor of protection. The protective import duty, as compared with the import duty "for revenue only," is a poor tax. It is uncertain and viciously variable, and in the great majority of cases is borne by the home consumer. To the extent that it does not prevent importation it affords no protection; and in so far as it does protect, it yields no revenue to the government. If it raises the price of the article upon which it is levied, however, the increase constitutes a tax upon one class of society — the consumer — for the benefit of another class — the producers of the article. One authority, perhaps the foremost authority, upon the American tariff problem, estimates that the present tariff upon sugar results in an annual tax upon American consumers of $101,000,000, of which $52,400,000 go into the treasury and $48,600,000 into the hands of sugar producers, principally resident in Hawaii, Porto Rico, and Cuba.[1]

In answer to this charge that protection involves the taxation of one class for the benefit of another class, it is not sufficient to reply that everybody is free to take advantage of the subsidy and engage in a protected industry. Everybody is not free to establish a rolling mill or a silk factory or a tin-plate plant. Protection means the taxation of the less acute, the less enterprising, the less educated and the poorer classes in order to create additional commercial opportunities for the abler, wealthier, and better-educated classes, thus reversing the whole spirit of modern taxation which contemplates — so far as it may be done without danger — rather the taxation of the rich for the assistance of the poor than the taxation of the poor for the benefit of the rich. It is not implied, of course, that protection involves class legislation of an unlawful character, nor that taxes are collected from one class and handed over in cold cash to the members of another class. The point turns upon the relative ability of the various social classes to take advantage of artificial opportunities created by the state at enormous expense to all.

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[1] Professor F. W. Taussig, in the *Atlantic Monthly* for March, 1908, p. 342.

(9) This brings us naturally to the ethical criticism of protection, the charge that by making the temporary prosperity of influential classes dependent upon government bounty, protection encourages those classes to exert a demoralizing pressure upon federal legislation. So great is the stake of private interests in tariff legislation, that systematic lobbying, log rolling, and corruption of the voter follow as inevitable consequences. The beneficiary of the tariff sacrifices his disinterested convictions concerning the general welfare, in order to preserve his own little subsidy from the government. Neither the citizen nor the legislator can vote purely, when his pocketbook is so vitally affected. Even if we admit what is probably true, that protection has resulted in comparatively little direct bribery of legislators, there seems no escape from the conclusion that it creates a kind of interest in legislation which is inherently dangerous and exceedingly difficult to keep within legitimate bounds. And as the manufacturing industries of the country fall more and more into the hands of large corporations and trusts, the possibilities of political corruption become more and more sinister, while the character of the chief beneficiaries of protection make them more and more undeserving of the bounties which they receive.

(10) Finally, it is alleged that protection fosters monopolies by shutting off international competition. This contention forms the subject-matter of a particularly heated dispute, and the exact extent to which the charge is true cannot be determined at this time. Certain modifications of the more extreme charge, however, are hardly open to question. Protectionists confessedly take it for granted that if foreign competition is shut off or lessened, home producers will still compete. Nevertheless, highly protective duties are still levied upon commodities whose manufacture in the United States has fallen under the substantial control of monopolies. It is furthermore admitted that such monopolies frequently sell their products at lower prices in foreign countries than in the United States; while it is impossible to deny that — whether the

monopoly *was created* by protection or not — the abolition of the duties, by giving foreign producers a chance to compete in this country, would tend to reduce prices, and thus give the American public a valuable ally in their struggle against monopoly. The tariff therefore may or may not be the mother of trusts, but it unquestionably deprives the American people of a strong weapon against the trusts.

Some General Considerations. — Before attempting to sum up the preceding arguments and strike a practical working balance, it is necessary to call attention to certain general considerations which have not figured in the foregoing "starched procession" of *pros* and *cons*. In the first place, it is necessary to remember that the federal government must secure a large revenue from tariff duties, and that in consequence the question which we are discussing is not one of protection *versus* free trade, but of protection *versus* freer trade. In the second place, the economic importance of the whole controversy has unquestionably been exaggerated. We find a country like England prosperous under free trade; we find countries like France and the United States prosperous under protection. It is of real but not of vital importance. Our internal trade vastly exceeds our foreign trade in every way. The domestic trade of the Mississippi Valley alone is far greater than our entire foreign commerce. In the third place, the American tariff is a historical growth, and bad as it may be in many respects it has taken deep root. During the last century it has become part of our life, and cannot be suddenly eradicated with impunity. If it is true that American labor would be better off without it, it does not follow that it ought to be removed suddenly in the interests of American labor. If the industrial growth is abnormal, it is none the less true that adjustment to normal conditions is a painful process and should be conducted cautiously. Displacements of labor and capital cause suffering and loss, and it is clear that any reform of the tariff must be conservative and careful, a movement toward freer trade, not the sudden withdrawal of protection.

Conclusions. — Most of the arguments enumerated above, both for and against protection, contain a measure of truth. Historically, we believe that protection was inevitable in the United States, and in the early period of the country's development, beneficial. During the three great wars which seriously threatened the stability of this country, many new industries sprang up which, upon the cessation of war and the resumption of international trade, were seriously threatened by foreign competition. Many of these industries were so suited to our soil and our people that only a short period of protection was needed to make them self-supporting. Under the circumstances it would have been unwise to permit the sacrifice of the capital invested in these industries; and whether it would have been unwise or not, human nature is such that the needed protection was sure to be granted. In short, there is a large measure of real truth in the infant industry argument.

Circumstances, however, have radically changed in the last few decades. Our *quondam* infant industries have, for the most part, attained a very vigorous maturity, and in some instances have become belligerent and prone to monopolistic bullying; our manufactures have become sufficiently diversified to remove all danger of industrial collapse in time of war; and, above all, we are rapidly entering the economic stage in which, according to the ablest exponent of protection that economic science has ever known, — Frederick List, — protection is a hindrance rather than a help. That is to say, we are rapidly building up an extensive export trade in manufactured articles; year by year raw materials constitute a larger proportion of our imports and a smaller proportion of our exports; and we have already become the greatest exporting country of the world. All this means that in the near future our manufacturers themselves will look with kindlier eyes upon the withdrawal of the protection they do not need, which in fact actually increases the cost of some of their raw materials, and incites foreign governments to retaliatory taxation upon goods imported from the United States. Our growing export trade will itself bring a wider appreciation of those fundamental principles which have led economists, with but few exceptions, to condemn protection as a permanent policy applicable to all stages of economic development.

QUESTIONS

1. What is meant by the law of comparative costs? Is the American custom of importing the finer textile fabrics and manufacturing the coarser ones an effect of this law?

2. In the illustrative case cited on page 285, would America confine herself wholly, or only chiefly, to the production of flour? Would the fact that some cloth was produced in America, and some flour in Holland, affect the validity of the law of comparative costs?

3. If a widow needs money so badly that she is willing to pay 200 per cent a year for its use, why is it wrong for a money lender to charge this rate?

4. What is the real nature of the balance of trade? Does our excess of exports (merchandise) mean that we are paying off our foreign indebtedness, or merely that we are paying interest on our foreign indebtedness?

5. In what respects does foreign exchange differ from exchange between two American cities?

6. What are the principal influences which affect the rate of exchange?

7. Is the gold supply distributed according to the needs or the respective demands of the various countries? Are needs and demands in this connection identical?

8. Mention as many methods as you can by which governments have endeavored to increase the supply of gold.

9. To what extent is the infant industry argument true? The home-market argument? The argument against "dumping"?

10. In what form was the wages argument first employed in the United States? In what does its essential error consist?

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PART V

DISTRIBUTION

CHAPTER XIX

DISTRIBUTION AS AN ECONOMIC PROBLEM

It has already been remarked that the production and the distribution of the annual income of society cannot be sharply separated, and more or less has already been said about the four parts into which the products of industry are usually divided; namely, wages, interest, rent, and profits. The greater part of distribution might undoubtedly be considered under the general heading "Production," but on the other hand, it is frequently asserted that distribution is "the true center of all economic inquiries," and it would be possible to treat nearly the whole of production from the standpoint of distribution. The truth is that these old traditional divisions of our subject-matter indicate different points of view, and on this account it seems desirable to retain them. When we pass from production to distribution, we do not enter an entirely new field, but we look at an old field of investigation from a new point of view.

The center of interest in the practical applications of economic principles has shifted from production to distribution. The mercantilistic writers of the seventeenth and eighteenth centuries were primarily interested in the most efficient ways of increasing the sum total of a nation's wealth. Even Adam Smith, as the title of his great work, *An Inquiry into the Nature and Causes of the Wealth of Nations*, indicates, had chiefly in mind the same problem, although he emphasized the fact that the real well-being of a nation consists in the well-being of the great body of its people. During the past century the production of wealth has increased beyond all precedent, the chief factors contributing to this result being the factory system, the exploitation of vast material resources (made possible only by modern methods of transportation) and the free scope given to the initiative of the individual business man. In the United States, at least, we do not feel that there are any pressing problems concerning the production of wealth. Yet poverty still exists, and its harsh features are thrown into sharper relief by contrast with the fact that the present production of wealth *per capita* in the United States is indisputably the highest that the world has ever known. Moreover, while the social discontent arising from inequalities in the distribution of wealth is a very old thing, it is only in modern times that democracy has given it an adequate opportunity for formulated, organized expression. It is not too much to say that nearly all the economic problems which are felt to press upon society to-day for solution relate directly or indirectly to the distribution of wealth.

It should be noted, however, that we have to discuss under the name "distribution" two different processes. The first and 1 inclusive meaning of the term is the distribution of the wealth or income of society among individuals and families; in other words, the question of individual fortunes, poverty and wealth. 2 The second kind of distribution is the division of the product among the different factors of production. This is not a question of wealth *versus* poverty, but of wages *versus* interest, profits, and rent. Of course, this kind of distribution affects the personal distribution of wealth, but it is by no means the same question. To explain why lots in New York City command high rents is one thing; to explain why a large amount of these rents go to the Astor family is another thing. In the case of wages, however, the two kinds of distribution amount to about the same thing. There is another sense in which the word is *not* used in this chapter. We do not mean by distribution the moving of goods from the place where they are produced to the place where they are consumed. When we hear of railways or other concerns as "distributive agencies," we are using the term "distribution" in a sense very different from that of the technical economic term "distribution." Distribution is a question of ownership, not a question of the location of goods.

Seligman
Principle

Distribution controlled by Existing Institutions. — The statement that distribution is a matter of ownership suggests at once the relation of private property to distribution. Individual wealth is, fundamentally, a sum of property rights. Every extension of property rights by society, as, for example, in permitting the private ownership of the rights to supply cities with water, electricity, or transportation facilities, extends the field of private gain and correspondingly affects the distribution of wealth. The income received by the successful manager of a municipal waterworks plant is undoubtedly a very different thing from the income the same individual would receive if he were the owner of a franchise permitting him to conduct the business of supplying the city with water as a private undertaking. The policy of leasing, rather than selling, public lands, which has been adopted by some of the newer American states, is bound to have an appreciable, even if not a very important, effect upon the distribution of wealth.

In the institution of inheritance we have an instrument which once in a generation redistributes the property rights in existing wealth. It is not strange that those who wish to limit or retard the growth of large individual fortunes have looked to the control and especially to the taxation of inheritances as a means to this end. Doubtless the prevalence of large landed estates in England is closely connected with the English law of primogeniture, just as the predominance of small holdings in France is in part due to the French law forbidding the disinheritance of any of one's children.

Personal freedom, as a legally guaranteed institution, is also of fundamental importance. The factors determining the income of the free workingman are very different from those determining the portion of the slave. It should be remembered, too, that the actual processes by which wealth is distributed are to-day largely controlled by the institution of contract. What rent, wages, or interest one gives or receives is no longer fixed by custom, as in the middle ages, but is a matter of agreement between individuals. So far as society limits the right of contract, as in the case of legislation regulating the employment of women and children, it correspondingly affects the distribution of wealth.

These fundamental institutions are discussed more fully elsewhere in this treatise. They are mentioned in this connection in order to emphasize more definitely the fact that the distribution of wealth takes place under the conditions imposed by the existing social order. Even the most radical advocates of greater equality in the distribution of wealth do not propose an arbitrary leveling down of fortunes. They direct their attacks against one or more of these fundamental institutions, such as inheritance, private property in land, or private property in production goods. Then there are many persons who are willing to accept the conditions imposed by the existing social order, as a field for the operation of *competitive* forces in wealth distribution, but who object to monopoly and special privilege. This suggests that the forces bringing about distribution on the basis of the existing social order are in themselves amenable to social control. If those who secure the chief prizes in the economic struggle may plume themselves on the fact that they are the victors in a game that is open to all, it is none the less true that society lays down the rules of the game.

A large part of the complex of institutions and regulations through which society controls distribution work smoothly and silently, their action, so far as society at large is concerned, being unconscious. It is only when obvious conflicts arise between some of the effects of this unconscious control on the one hand and present-day ideals of social welfare on the other hand, that the significance of any part of this fundamental institutional control becomes generally felt. It is not the least of the merits of the study of economics that it emphasizes the fundamental character of that part of the social control of wealth production and wealth distribution which lies below the horizon of social consciousness.

The Distributive Process. — If each family produced all that it consumed, as most families still do in part, there would be no problem of distribution, except whatever problems might arise as to the factors determining the amount produced by each family. But, since most men to-day are working in more or less specialized employments, and for money incomes, the fact is, as was suggested in a previous chapter, that distribution takes place through a process of valuation. Some men (manufacturers, merchants, farmers) make a money income by selling goods for more than it costs them to produce them or to buy them from others, while other men (laborers, salaried employees, professional men, capitalists, landowners) get a money income by selling their services or by selling the use of their capital or land. In the first case, the money income takes the form of profits; in the second case, it is wages, interest, or rent, as the case may be. A man's real income consists of the commodities and services that satisfy his wants; and the extent to which his money income can be transmuted into real income depends on the prices of these things. One always has the option, of course, of investing part of his money income in production goods rather than in consumption goods, thus giving up part of his present real income for a larger future income. However, since different men have to pay about the same prices for the same kinds of goods, a discussion of the factors determining money incomes will be, *ipso facto*, a discussion of the factors determining real incomes, except as it is found that certain kinds of incomes are changed more readily to meet the conditions imposed by changes in prices than are other kinds of incomes.

It is obvious that one person may be the recipient of more than one kind of income. The American farmer who owns the land, buildings, farm machinery, and live stock that make up his productive equipment, and who does part of his own work, is at the same time entrepreneur, landlord, capitalist, and laborer; and his income is made up of different proportions of profits, rent, interest, and wages. The net income of a tenant farmer, utilizing only borrowed capital, and employing only hired labor, would, on the other hand, consist entirely of profits. The economic analysis that seeks to determine the rules governing the apportionment of the annual dividend under the categories of profits, wages, rent, and interest, bears only indirectly upon the question of the personal distribution of wealth. The income that any individual receives depends primarily upon his relative efficiency as a wage earner or as an entrepreneur, or upon the amount and the income-yielding capacity of the capital and land which he owns. His ownership of capital and land may have come about through the thrifty husbanding of portions of his income in previous years, or it may have come about through gifts or inheritance.

Distribution as Valuation. — To explain the value which society puts upon personal services is to explain wages; to explain the values attached to the use of land and capital is to explain rent and interest. Certain special and distinguishing characteristics enter into the determination of each of these three kinds of value. The conditions governing the supply of labor are, for example, very different from the conditions governing the supply of land. Yet there are some fundamental facts that are the same for all of these three kinds of valuation. The most important of these common factors is the *law of diminishing productivity*.

ex.

Assume as an illustration that a certain farm is cultivated by a farmer who uses only his own labor, together with a certain amount of capital in the form of draft animals and agricultural implements. Let us assume further that his land is devoted exclusively to the growing of one crop, — corn, for instance. His money income will depend on the amount of corn he can produce and the prices he can get for it. If prices remain constant, he can increase his income only by increasing his product. His product may be increased by the use of any one of a number of different methods. In the first place, he can hire a farm laborer to assist him. The two men, working together, will undoubtedly be able to get a larger product from the farm than one man could. In some cases they may be able to get double, or even, through the advantages of coöperation, more than double, what the farmer could produce working alone. More often, perhaps, the employment of the second man will not double the total product. However that may be, it is absolutely certain that if the farmer employs a third, a fourth, or even more men, he will sooner or later reach a point where it will be found that the employment of the last man has not increased the product as much as it was increased by the last previous laborer. That is, the addition of the third man may not have increased the product as much as the employment of the second man did, or the fourth man may not have increased the product as much as the third man did. This point is called the point of diminishing productivity,[1] for after this point is once reached it will be found that, save under the most exceptional conditions, each successive additional laborer will increase the aggregate product by an amount less than the last previous laborer added to it. This fact is not due to any differences in the laborers, whom we assume to be of equal efficiency. It means simply that as the productive possibilities of the farm with its equipment of capital become more fully exploited through more careful tillage, it requires increasingly greater efforts, in the form of still more careful and thorough tillage, to increase the product by a given amount. This is a fact of such common observation that it needs no statistical proof; although various agricultural experiment stations have made records of the effect of different degrees of thoroughness of cultivation upon the yield of different crops.

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[1] In some economic writings what is here called "diminishing productivity" is termed "diminishing returns." It seems preferable to reserve the latter term for its more familiar application to the phenomenon of the increasing costs connected with the *extension* of agricultural cultivation.

One might imagine, at first thought, that, after the point of diminishing productivity had been reached, it would not pay the farmer to hire additional laborers. But the only question that directly concerns the farmer in this connection is whether an additional laborer will "earn his wages," — that is, *whether the added product will sell for enough to cover the additional expense incurred for wages.* It will pay the farmer to extend his employment of labor up to the point where the addition of another laborer to the working force would increase the product by an amount too small to sell for enough to pay the wages of the laborer, and where the deduction of a laborer from the working force would decrease the product by an amount at least sufficient to pay the wages of the laborer. If the farmer stops short of this point, he is not making all the possible profits; if he goes beyond it, he is cutting down his profits by employing labor which does not "earn its wages." The last laborer employed (not necessarily any particular laborer, nor the last in point of time) is the *marginal laborer*, and the increase in the total product attributable to the marginal laborer (the part which would be lost if one less laborer were employed) is the *marginal product of labor.* If the farmer has estimated product and prices accurately, it will be found, of course, that the value of the marginal product of labor will be approximately equal to the wages of the marginal laborer. Or, since the laborers are supposed to be of equal efficiency, and hence to receive uniform wages, the statement may be put in the broader and more significant form that *wages and the marginal product of labor will tend to equal each other.*

The diagrams illustrate the principle of the diminishing productivity of labor, developed in the foregoing analysis. In Figure 1 the rectangle *OM* represents the amount of corn that the farmer could raise on his land if working alone, with his given equipment of capital. The rectangle *AN* represents the increase in the product effected by the addition of another worker. Similarly, *BP*, *CQ*, *DR*, and *ES* represent respectively the additions to the product resulting from the employment of a third, fourth, fifth, and sixth laborer. If *DR* bushels of corn — the increment in the product attributable to the fifth laborer — sells for about enough to pay the wages of one laborer, the farmer will refuse to employ the sixth laborer, while the employment of the fifth would be a matter of indifference. If the fifth laborer were employed, the proceeds of the sale of that part of the total product represented by the rectangle *OERH* would be used up in the payment of wages (including payment for the farmer's own work as a laborer), while the part of the product represented by the small rectangles above the line *HW* would be left to recompense the farmer for the use of his land, for the interest on and wear and tear of his capital. If any surplus is left after these demands are satisfied, it would, of course, constitute the farmer's profits. If the conditions were as assumed, the fifth laborer would be the marginal laborer, and the product represented by the rectangle *DR* would be the marginal product of labor.

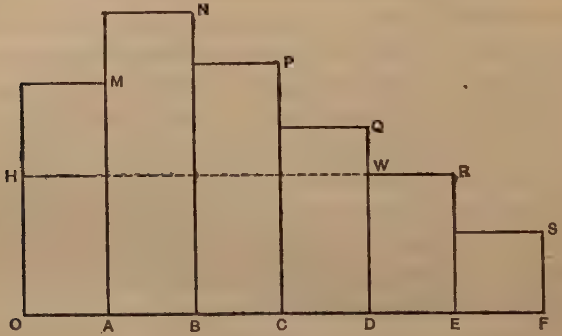

FIG. 1

If we were dealing with a very large undertaking, in which many laborers are employed, the successive rectangles representing the increments in the product attributed to the hypothetical addition of successive laborers could be conceived as indefinitely narrow, so that the graphic representation would take the form represented in Figure 2, where the line *AM* is located at the point of diminishing productivity, and where the line *BN* represents the marginal product of labor. In this case the rectangle *OBNH* represents the part of the total product which will just suffice to pay the wages of all the laborers employed.

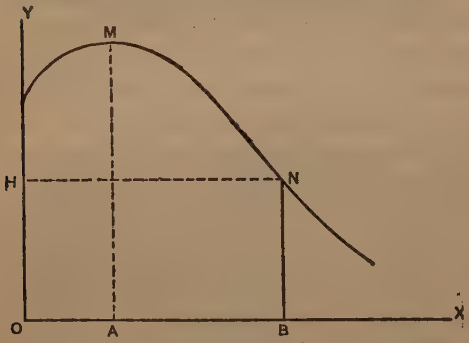

FIG. 2

Thus far we have supposed that the farmer is content to get along with his original amount of land and capital, and to increase his product by means of an increased use of labor. Other possibilities are, of course, open to him. It might happen that he would be content to do without additional laborers, using instead an increased equipment of capital. By purchasing more draft animals, more labor-saving machinery, improved fertilizers, or possibly by installing drains or irrigation ditches, as the case may be, he may be able to raise considerably more corn than he could without such investments. But here, again, he will find the possibilities of increasing his product subject to the same limitations that would have prevailed had he increased his labor force. With a team of horses he will be able to accomplish more than he could with one horse; two teams of horses may still further increase the productivity of the farm; a third would probably be of very little advantage, and a fourth team still less useful. So with investments of capital in other forms: the law of diminishing productivity is a remorseless physical fact which the farmer has to reckon with. But the concrete form in which the problem presents itself to him is this: Will a further investment of money in a specific kind of capital goods pay me? Here the farmer has to make on the one hand the best estimate he can of the amount which the proposed capital goods will add to his annual product, and of the probable selling value of the increased product. On the other hand, he has to count his increased annual expenses. These will include (1) the original cost of the additional equipment, divided into annual costs according to its probable durability (each year's costs being properly only the wear and tear, or "depreciation" attributable to that year's use); (2) the maintenance or upkeep (including such things as ordinary repairs on machinery and the cost of feeding horses), and (3) the interest on the investment (what the farmer has to pay if he borrows the necessary funds from some one else, or what he might have lent his money for to some one else if he uses his own funds). Guided by these estimates, the farmer will naturally increase his equipment of capital goods so far as the returns from the added product would more than suffice to cover his increased costs. Beyond this point he could not wisely go. The last increment of capital — which just suffices to pay for itself — is the *marginal increment of capital,* and the added product attributable to it is the *marginal product of capital.*

The diagrams portraying the operation of the law of the diminishing productivity of labor will serve as well to illustrate the diminishing productivity of capital. Assuming that the amount of land and the amount of labor to be utilized are definite in quantity, the successive rectangles in Figure 1 represent the increase in the gross product attributable to each of successive increments of capital. Figure 2 represents the same conditions, except that each increment of capital is assumed to be indefinitely small.

If (in Figure 2) BN represents the marginal product of capital, the whole return imputed to capital is, of course, represented by the rectangle $OBNH$. The area above the line HN represents the part of the product which is available for rent and wages, the farmer's profits being derived from any surplus that is left after these demands are satisfied.

There is one difficulty in the foregoing analysis, however, that may have been noted by the reader. What is meant by an "increment of capital"? In the case of labor the "increment of labor" can be interpreted as the labor of one man (for any definite period of time that may be chosen), the one man being assumed (for the purpose of simplicity in the analysis) to be of equal efficiency with all others constituting the labor supply. It is just as practicable, of course, to assume that one horse is, for the farmer's purposes, just as efficient as another horse, that only one kind of plow is available, and that one bushel of fertilizer is exactly like any other bushel of fertilizer; but this does not help us out of our difficulty. For how can we blend horses, plows, and fertilizers into one concept, and divide them into "increments of capital"? One way of getting around the difficulty is to think of the capital which the farmer combines with his labor and his land in terms of its money value. In this sense an increment of capital might be a dollar's worth of capital, or ten dollars' worth of capital, without reference to the different kinds of concrete production goods really composing it. This device is useful for some purposes, but it obscures the fundamental fact that capital gets its value from its ability to secure an income for its owner. The purpose of this analysis of diminishing productivity is to open the way for a discussion of the valuation of the services of land, labor, and capital. To use the term "capital" in the sense of capital value at this stage in the discussion would only lead us into a circular argument. This point cannot be further elaborated here, but should be kept in mind by the reader in connection with the discussion of interest in a subsequent chapter.[1] As a matter of fact the law of diminishing productivity holds for each specific kind of capital that the farmer uses. For example, imagine that the farmer is limited to the use of a fixed amount of all forms of capital except one, — horses, for instance. Then the successive rectangles in Figure 1 would represent very well the increments of product gained by the use of additional horses, while if the product added by the use of a fifth horse is just about enough to pay for the increased expense, the rectangle *DR* would represent the marginal product. The illustration can, by a similar process, be made to apply to any other kind of capital. The farmer will normally make use of *each specific kind* of capital up to the marginal point.

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[1] Professor J. B. Clark avoids the difficulty here discussed by using the term "capital" in a sense which corresponds neither to the concrete instruments of production that make up capital goods, nor to the value of these capital goods,

A third way of increasing his product is also open to the farmer. He may think it wiser to get along with his original equipment of capital and his own labor, and to increase his product by utilizing more land. The adoption of this procedure would mean a less intensive cultivation per acre of land. The use of labor and capital would have to be distributed more thinly over the larger acreage. This would result in a smaller product *per acre*, but the procedure would be warranted if the increase in the annual product should sell for more than the annual cost of the additional acreage. By the annual cost of additional land we mean the rent which the farmer has to pay for the land if he leases it, or the interest on the amount of the purchase price, if he buys it. It is obvious, however, that the combination of more and more land with a fixed amount of labor and capital will result in a smaller and smaller return per acre of land, and that a point will soon be reached beyond which it will not pay the farmer to go. In other words, the law of diminishing productivity rules when land is considered as the variable factor, just as it does when labor or capital is considered as the variable.

The diagrams already used may be adapted to the illustration of the present hypothesis by assuming that equal areas, if successively combined with a given amount of labor and capital, would yield increments of product as represented by the successive rectangles in Figure 1, or by the curve in Figure 2. It is assumed for the sake of simplicity in the illustration that the different acres of land available for the farmer's use are of equal fertility.

but as denoting a self-perpetuating fund which bears the same relation to concrete production goods (including land) that a river does to the drops of water of which it, at a given time, is composed. Professor Clark finds this concept useful in his own analysis (*cf.* his *Distribution of Wealth* and *Essentials of Economic Theory*), but it is altogether too abstract and hypothetical to be of use in the present connection.

The Actual Operation of Diminishing Productivity. — It has been assumed thus far that the farmer of our illustration has to be content with a fixed quantity of two of the three factors in production, but that he is at liberty to increase his use of the third factor up to the point where the maximum profits will be gained for himself. Assuming in turn that each of the three factors in production was the variable one, we found that in each case the law was the same — maximum profits were obtained when the product added by the last increment of the variable factor would sell for just enough[1] to cover the increased expense. In one way, however, this assumption does not correspond with the facts. The farmer is at liberty to increase his products by increasing his utilization, not only of any one, but of any two, or all of the three, factors of production. He may, for example, purchase more draft animals and more machinery, employ more labor, and at the same time acquire more land. To a certain extent the use of one factor may lessen the use of another (as in the case of labor-saving machinery and labor). More often, however, the reverse is true. The acquisition of machinery may necessitate the use of more horses, while the acquisition of more land will often make profitable the use of more labor as well as more capital — a fact which is itself implied in the law of diminishing productivity. Although the employment of labor, capital, and land can thus be increased simultaneously, the significance of the law of diminishing productivity is in no wise diminished. The farmer, in deciding upon the purchase of a particular kind of capital good, has to take into account his present and, to some extent, even his probable future supply of other kinds of capital goods, as well as of land and labor, before he can form a judgment as to the amount which the use of the particular capital good will add to his annual product. Moreover, he has to choose between additional investments in labor as against additional investments in land, or additional investments in different kinds of capital. But his effort to get maximum profits will lead him to make those investments which promise to result in the greatest additions to his product. The result of this will be, normally, that each factor in production will be utilized up to the marginal point — the point where further utilization would add a product so small as to sell for less than the increased expenses.

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[1] Whether this last unit, which just pays for itself, will be added, is, of course, a matter of indifference. The margin is consequently sometimes called the "margin of indifference."

Why the farmer should not increase his product indefinitely by increasing his use of all three of the factors in production is a question which does not concern us in this connection. The law of diminishing productivity relates only to the *proportions* in which land, labor, and different forms of capital are combined. The question of the most profitable size of farm is quite another thing.[1]

It is not only in agriculture that the law of diminishing productivity is the fundamental thing in determining the proportions in which the factors of production are combined. Every manufacturer has the option of using either relatively more machinery and relatively less labor, or relatively less machinery and relatively more labor in order to produce a certain quantity of goods. He may have to decide, also, between building a six-story factory covering an acre of ground, and a one-story factory covering six acres of ground — a problem which is paralleled by the farmer's problem of deciding between the cultivation of a relatively large acreage and the more intensive cultivation of a smaller acreage. The entrepreneur in every kind of undertaking has to decide as to the advisability of a particular investment in land, capital, or labor, with reference to the fundamental question, "Will it pay?" And the profitableness of any such investment is always a matter of the cost of the unit of land, labor, or capital, as compared with the selling value of the quantity which it will add to the entrepreneur's total product.

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[1] The limitations to the profitable size of a farm or other business unit arise from the fact that the managerial efficiency of the entrepreneur is itself subject to the law of diminishing productivity. Under competition there is a constant tendency for labor, capital, and land to get into the hands of those entrepreneurs who can use them most efficiently, that is, who can pay most for them because they can get the largest product from them. But even if A is a better entrepreneur than B, it may easily happen that B can get a larger product from additional units of labor, capital, and land than A can, if B's existing equipment is considerably smaller than A's. A given farmer cannot extend his use of land, labor, and capital indefinitely, simply because, after his establishment reaches a certain size, other

In order to achieve maximum profits, each entrepreneur will endeavor, so far as is practicable, to apportion his use of land, labor, and capital so that the value of the increment of product attributable to the marginal unit of each factor in production will about equal its expense.

The significance of the law of diminishing productivity in relation to the distribution of wealth now becomes apparent. If a given class of laborers in a given employment receive like wages, their wages (being the same as the wages of the marginal laborer) will tend to equal the marginal product of labor. The expense incurred by the entrepreneur for any unit of a certain kind of capital goods will tend to equal the value of the marginal product of that particular kind of capital goods. The rent which the farmer will pay for any acre of a quantity of land of uniform quality will tend to equal the value of the marginal product of land of that quality. But so far as competition works freely, different entrepreneurs in the same market will have to pay the same wages for the same kind of labor, the same price for the same kind of capital goods, and the same rent for the same kind of land; and they will get the same prices for the same kinds of products. So it is possible to state in more general terms that the remuneration of each factor in production tends to equal its marginal product.[1]

farmers can use additional units of the productive factors more profitably than he can. The most profitable size of the business unit will vary, other things being equal, with the efficiency of the entrepreneur.

Some writers have introduced the efficiency of the entrepreneur as a fourth variable in their discussion of diminishing productivity. Such a procedure is avoided in this book, because it leads to theoretical complexities and because it involves a shifting of the point of view. The diminishing productivity of each of the three factors in production is a physical fact which every entrepreneur has to deal with, and which we can explain most clearly by adhering to the analysis of the motives controlling the individual entrepreneur. The analysis of the diminishing productivity of the entrepreneur's efficiency, on the other hand, involves of necessity the social point of view, for the only kind of estimate that is made of the entrepreneur's productivity is expressed through the social process of the valuation of the entrepreneur's products. In this book the diminishing productivity analysis is applied only to the entrepreneur's expenses of production, the entrepreneur being regarded (as he is in accounting practice) as the "residual claimant."

[1] The statement that rewards tend to equal products has no ethical significance, and should not be interpreted as a justification of the present economic order, — and this for the following reasons among others: (1) That distribution ought to

It is not necessary for the validity of this marginal productivity theory of distribution, as it is called, that in any particular undertaking at any given time the proportions in which the factors of production are actually combined should be adjusted with the nicety which the theory seems to imply. The amount of land which the farmer holds at any one time is apt to be fixed by his estimate of his future rather than of his present production, while custom, pride of ownership, and the chance of gain through an increase in land values (which is not to be confused with the motives guiding his activity as a producer) have their influence. Moreover, the size of the government homesteads into which a large part of

be according to productivity is itself a debatable proposition. Some socialists, for example, maintain that distribution according to needs is a higher ideal. (2) The ethical side of the problem of distribution relates to personal distribution, while the marginal productivity doctrine relates to the determination of the incomes going to the different factors in production. To state that the rent of an acre of land tends to equal the value of its product is not to say that the landowner has "earned" his income. The private receipt of rent depends upon such social institutions as private property, inheritance, and free contract, and these have to be judged from the broad viewpoint of social welfare. (3) The efficiency of the individual laborer, which is one of the things determining his productivity, often depends upon the opportunity he has had to "make the most of himself." But opportunity depends largely on environment, and this in turn is to a large extent amenable to social control. (4) The amount of the marginal product of any one factor in production is itself a resultant of all the forces affecting the supply of all the factors in production and of all the conditions that affect their fitness to serve in the production of the things that consumers are demanding. (5) This theory is only a statement of a normal tendency. It does not, properly understood, conflict with the fact that such things as custom and other forms of economic friction and inertia, the higgling of the market, the conscious efforts of social classes to better their condition, imperfections in the monetary system, short-sighted selfishness on the one hand, altruism on the other, as well as the conscious social control expressed in labor legislation, usury laws, and the like, all have important effects upon the incomes actually received by those who furnish labor, capital, and land for the work of production. Actual wages may differ from the normal wages measured by marginal product just as contractual rent may differ from economic rent. (6) We can imagine an economic order very different from the present one in which it would still be true that incomes would tend to equal products. If, for example, wages were arbitrarily increased 50 per cent by law, while one result would undoubtedly be an increase in unemployment, it would still be true that wages would tend to equal the marginal product of labor, or, rather, that the marginal product of labor would tend to equal wages. To attempt to avoid this difficulty by assuming that the present order, or a purely competitive order, is the "natural" order of things, is to beg the whole question in favor of the existing status.

the public domain was divided has had an important effect on the size of the farmer's holding in a large section of the United States. The average American farmer undoubtedly holds more land than he would if he were looking only for maximum present profits. The practical problem for him is apt to be how intensively he shall cultivate it: how much labor and capital he shall combine with it. That is, he is apt to use relatively more land and relatively less labor and capital than he would use if every additional acre of land used meant an additional expense for land. This conclusion is not altered by the fact that his land is probably not of uniform quality, and that some of it may not repay cultivation under present conditions. In a similar way the manufacturer builds his factory for the future, and may even equip it with a larger complement of some kinds of machines (such as boilers and engines) than present requirements justify. On the other hand, a sudden and probably temporary increase in demand for a product will be met by the manufacturers by the employment of more labor (even at the high rate charged for overtime or night work) rather than by the installation of more labor-saving machinery, even though the latter might, in the long run, be more economical. In general, when considerations which take into account a period of years dominate, land and the more permanent forms of capital goods will be used more freely, labor and the less permanent forms of capital goods less freely. When short-time considerations are dominant, the reverse will be true.

These limitations do not invalidate the law of the equality of the remuneration of the factors in production and the value of their marginal products any more than the fact that a feather does not fall through the atmosphere as rapidly as a stone invalidates the law of gravitation. This law, like other economic laws, is the statement of a fundamental tendency, which, in this case, is bound up with the universal desire of entrepreneurs to get for themselves the largest possible profits.

Marginal Productivity and Valuation. — The reader who has firmly grasped the concept of marginal utility will find that a recognition of some similarities in the rôles which marginal utility and marginal productivity play in the process of valuation will help him to grasp the significance of the latter concept. The value of consumption goods is determined by their capacity to yield an income of satisfactions; the value of production goods is determined by their capacity to yield a money income to the entrepreneur. In the one case the law of diminishing utility is dominant; in the other case, the law of diminishing productivity. Just as we cannot speak of the utility of a commodity in general, but only of the utility of particular units of a commodity, so we cannot speak of the productivity of land, labor, or capital in general, but only of the productivity of particular units of land, labor, and capital — a productivity which is attributed or imputed to other similar units of the supply of these factors in production. The consumer is getting the maximum of satisfaction of his wants when the final dollar spent for one commodity satisfies just as intense wants as the final dollar spent for any other commodity, and he tends to apportion his expenditures accordingly. The entrepreneur is not making maximum profits if his final expenditures for any one of the factors in production add more to his product than his final expenditure (of equal amount) for either of the other factors in production, and he tends to apportion his employment of land, labor, and capital accordingly. But it must not be supposed that the statement that the prices paid for land, labor, and capital tend to equal the value of their marginal products is a complete explanation of the valuation of the services of the factors in production any more than the principle of marginal utility is a complete explanation of the valuation of consumption goods. In fact, from one point of view, marginal productivity is itself partly determined by the prices which the entrepreneur has to pay for the services of the factors in production.

The demand for the use of land, labor, and capital is ultimately a demand for their products — the goods that satisfy human wants. The entrepreneur's task is to anticipate and meet this demand — a problem that takes the concrete form of producing goods that will sell for more than the expense of production. On the one hand he has to estimate the quantities which he can sell at certain prices; on the other hand, he has to take account of the quantities which various units of land, labor, and capital will contribute to his product, together with the prices (wages, rent, and interest) that he has to pay for these units. Through his mediation the demand of society for want-satisfying goods becomes a demand for the services of certain quantities of land, labor, and capital, combined in certain proportions. And the principle that guides the entrepreneur's transformation of the social demand for the products of land, labor, and capital into his own demand for the services of these factors in production is the principle of marginal productivity. The wages, rent, and interest that are actually paid for the services of the factors in production are the resultants of the demand of entrepreneurs, on the one hand, and of the supply of these factors on the other hand. *The principle of marginal productivity is an illuminating way of stating the problem of the distribution of wealth, rather than a solution of it.* Just how supply and demand operate in the case of each factor in production is a topic to be considered in later chapters.

Social Aspects of Diminishing Productivity. — Since the entrepreneurs are only the intermediaries between society viewed as a body of consumers and society viewed as a body of producers, we may, for present purposes, leave them out of consideration, in order to fix our attention upon some of the more general results of the fact of diminishing productivity.

If the number of laborers within the boundaries of a nation is increased by immigration, without a corresponding increase in capital or in the amount of land available for use, the result will be an increase in the total amount of goods produced, which means an increase in the amount of wealth produced per unit of land and capital, but (on account of the operation of the law of diminishing productivity) a decreased amount per laborer; a higher marginal product for land and capital, and a lower marginal product for labor; consequently, higher rent and higher interest, but lower wages. If the supply of capital within a country is increased, while labor and land remain constant, the result will be higher wages and higher rents, but a smaller remuneration for capital. Similarly, if the available supply of land be increased (as by improvements in transportation facilities), rent will absorb relatively less, and wages and interest relatively more, of the value of the total product.

In a very real sense the same laborer is more productive in a country where land is relatively plentiful than in a country where land is relatively scarce. A laborer may gain no technical efficiency by migration from Europe to America, but the increment of product attributable to his work is apt to be considerably larger in the United States than it was in Europe. Here he really creates a larger product and earns a larger wage. The migrations of labor and capital from one region to another, or from one country to another, are guided by the endeavors of capitalists and laborers to get the maximum remuneration, — which will always be found where the value of the marginal product of capital or labor is a maximum.

In a prosperous country it is apt to be the case that the supply of labor and the supply of capital are being increased simultaneously, though not necessarily with equal rapidity, while more land is at the same time being made available through improvements in transportation. Save under such exceptional conditions of railway building as have prevailed in the United States during the past fifty years, the available supply of land is apt to increase more slowly than the other factors in production increase. In general, the law of diminishing productivity will necessitate a continual increase in the proportion of the product set aside for the remuneration of each unit of the most slowly increasing factor in production; while, of the other two factors, the one that increases more rapidly will receive, per unit, a relatively smaller and smaller proportion of the value of the total product.

QUESTIONS AND EXERCISES

1. Do you know of any instances where the distribution of wealth has been affected, directly or indirectly, by conscious social action?

2. Prepare tables or diagrams illustrating the operation of the law of diminishing productivity in some industry with which you are familiar.

3. Why is the same laborer more productive in America than in Europe? Is this a condition that will probably continue indefinitely?

4. Why do lands in Belgium produce more per acre than similar lands in the United States?

5. Why are twenty-story office buildings not erected in small cities?

6. What is the relation of the discussion in this chapter to the socialist contention that labor produces all wealth?

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CHAPTER XX

THE PERSONAL DISTRIBUTION OF WEALTH

In the present chapter we shall study the distribution of wealth and income among individuals simply as individuals, and not as factors of production. What is the cause of large fortunes? Is the middle class disappearing? Can we abolish poverty? In the chapter on Consumption, reference has been made to the ideal distribution of wealth, — here we shall deal chiefly with actual conditions. But to begin with, certain distinctions must be clearly drawn.

Wealth and Income. — The distribution of wealth and income should be distinguished. If we have in mind simply the enjoyment of material things, then we must pay attention to the distribution of income. A man of vast possessions may be very frugal in his consumption, acting with respect to most of his property simply as a trustee for society. But when we are interested in social classes, industrial democracy, and personal power and independence, then the distribution of wealth is the important consideration.

Absolute and Relative Well-being. — Two entirely independent inquiries are very frequently confused. (1) We may wish to know whether the condition of the mass of the people is getting better or worse. Do they have more or less of the good things of life than their ancestors had? But we may also ask, (2) What share of the total product of industry is received by each section of the community? Which section is gaining upon the others? If A and B divide a catch of ten fish equally to-day, and if to-morrow A gets ten out of a total catch of thirty, then absolutely his income has increased, but relatively it has declined.

Concentration of Wealth and Large-scale Production. — It is perhaps worth while to warn the reader against confusing the question

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of large and small fortunes with the question of large and small scale production. However improbable, it is at least conceivable that there might be an equality of property while production is carried on largely as it is to-day, for we have but to imagine an equal distribution of stock holdings.

Methods of measuring Concentration of Wealth and Income. — How shall we tell whether the middle class is tending to disappear? A common method is to make a classification of wealth and income, and then to compare the number of persons in each class at different dates. The unreliability of the conclusions based on such a procedure is made clear by the following hypothetical illustration: Let \$100 be distributed among ten persons as follows: \$1, \$3, \$5, \$7, \$9, \$11, \$13, \$15, \$17, \$19. Then suppose each individual's holding is doubled, thus: \$2, \$6, \$10, \$14, \$18, \$22, \$26, \$30, \$34, \$38. Relatively to each other they are all in the same position as before, but by the erroneous method of comparison referred to, there appears to have been a concentration because the number in the highest class has increased most rapidly: —

TABLE I

Class	Number	
Dollars	First Case	Second Case
0 and less than 5	2	1
5 and less than 10	3	1
10 and less than 15	2	2
15 and over	3	6

A satisfactory method of comparing the distribution of wealth at different epochs must take account of the changing significance of fixed classifications when there has been a change in the *per capita* wealth. This can be done by observing what proportion of the wealth is owned by certain sections of the population, such as the poorest third, the middle third, or the upper third. If a larger proportion of the total wealth falls into the hands of the upper third, we may say there is evidence of a growing concentration of wealth. It is clear that no definite movement is necessarily discernible even when changes are taking place, for these changes may tend toward concentration in one part of society and toward diffusion in another.

Statistics of Distribution. — There are many investigations showing the earnings of particular classes of workers, but in the United States there is no reliable statement of the division of the national wealth or income among all classes of society. We could not use the property tax assessments for this purpose because of their inaccuracy, and because of the fact that one individual may be taxed in various jurisdictions. The returns of the probate courts have been used as a basis for a statement of wealth distribution in the United States on the assumption that the distribution of wealth among persons who die in any year is an index of the distribution of wealth among those who are living. But the incompleteness of our probate returns make this method also a hazardous one. Such statistics as we have do not enable us to say more than that a small proportion of the population at the top of the social scale controls a large proportion of the nation's wealth, but no marked tendency either toward concentration or diffusion in the last fifty years has been proved.

The growth of the number of millionaires has been used as an evidence of growing wealth concentration, but it should be noted that a growth of population and wealth in a community would cause an increase in the number of millionaires, even if the relation between the various classes remained the same. Suppose that in 1850 there had been in the United States but fifty millionaires, that three hundred and fifty persons had from $750,000 to $1,000,000, and that six hundred persons had from $500,000 to $750,000. If the population had remained the same and every one's wealth had been doubled, in 1900 there would have been one thousand millionaires, and if the population at the same time increased fourfold, with the relations among the new population the same as in the old, we should then have four thousand millionaires without any tendency toward concentration. Nevertheless, the increase of large fortunes has been so startling that in spite of these considerations one may perhaps regard them as an indication of a growing concentration of wealth. The lists of very rich men published in the United States from time to time are instructive on this point. In 1820 men with a personal property of $20,000 were included; in 1846 a total property of $50,000 was considered very large; in 1855 this was doubled; in 1892 a man must be a millionaire to be considered very rich, and at present one may speak of even a billionaire.

More satisfactory statements can be made for those countries which collect an income tax. The following figures are from a table prepared by Professor Wagner, in a study of the income-tax returns of Prussia: —

TABLE II

INCOMES IN PRUSSIA, 1892 AND 1902[1]

CLASSES IN DOLLARS	PER CENT OF PERSONS (Heads of Families or Single Adults)		PER CENT OF INCOME (That below $214 is estimated)	
	1892	1902	1892	1902
Below 214	78.18	70.66	41.21	32.97
214–714.	18.98	25.83	30.01	34.92
714–2261.	2.33	2.88	12.83	13.73
2261–7259. . . .	0.41	0.51	7.37	7.84
7259–23800. . .	0.08	0.10	4.65	5.13
Over 23800. . .	0.01	0.02	3.93	5.40
Absolute amounts (Total).	Number 11,162,000	Number 12,813,000	Dollars 2,309,076,000	Dollars 3,039,498,000

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[1] From Zeitschrift des Preussischen Statistischen Bureaus, 1904, p. 231.

The great mass of the people are too poor to pay any income tax at all, the minimum income taxed being $214. The upper 3.51 per cent of the population receives about one third the total income, but in connection with such a statement it should be said that even if incomes should be equally distributed, the average income per family, or single adults, would be very small ($237 in 1902). With a very moderate inequality in distribution, the mass of the people must still be unable to pay an income tax. Thus, the table shows as much the niggardliness of nature as the injustice of man to man. From 1892 to 1902 there seems to have been an absolute increase in money incomes among the lowest class of the people, since a considerably smaller proportion of the population is found in the class with incomes below $214 in 1902 than in 1892. But the table as a whole shows a slight tendency toward a concentration of incomes in the hands of the upper classes.

When we turn from the question of relative well-being to that of the actual condition of each class taken by itself, we find two facts standing out prominently: (1) the fruits of economic progress have not been confined to a small class, but have been shared by the masses, and (2) a surprisingly large section of the population is still in poverty.

With respect to the first, we may say that in material comforts the people of this generation are better off than they have ever been before. The work of settlement in which so many of our forefathers engaged was laborious and exhausting. Food was often scarce, disease was rife in many settlements, and the women and children in particular suffered greatly. After the wilderness was cleared, there ensued a period of "rude plenty." Food was abundant, but it was coarse in quality and restricted in variety, whilst everything that had to be brought from a distance was very expensive. Education was difficult to secure, books scarce, and the lives of most people were, in the main, monotonous and uneventful.

The course of wages from the middle of the eighteenth century to the year 1905, and the movement of prices from 1860 to the latter date, are given in Table III following. The figures are not altogether comparable, nor so trustworthy as could be wished, but the general impression which they give is correct. Speaking generally, money wages have steadily risen, and the hours of labor have declined, with minor interruptions, since the colonial period, while prices have fluctuated irregularly. Taking all kinds of commodities into account, the level of prices in the last half century has probably been little if any above the level of prices in the first half of the nineteenth century. The standard of living has perceptibly risen, and the working classes save no more, possibly, than they did several generations ago. But they live better.

TABLE III

WAGES, PRICES, AND HOURS OF LABOR IN 1860 TAKEN AS 100						WAGES, PRICES, AND HOURS OF LABOR IN 1890 TAKEN AS 100			
DAY LABORERS IN MASSACHUSETTS [1]		EMPLOYEES IN MANUFACTURING INDUSTRIES — EASTERN STATES				GENERAL INDUSTRY, EXCLUDING AGRICULTURE, MINING, AND TRANSPORTATION			
PERIOD	RELATIVE WAGES	YEAR	RELATIVE			YEAR	RELATIVE		
			Wages [2]	Cost of Living [2]	Hours of Labor [3]		Wages [4]	Prices [5]	Hours of Labor [6]
1752–60	.29	1860	100	100	100	1881	95.3	114.5	103
1761–70	.325	1861	100	111	99.1	1882	96.9	117.5	103
1771–80	.376	1862	100	123	98.2	1883	97.7	114.8	103
1781–90	.428	1863	109	137	98.2	1884	98.5	107.7	103
1791–00	.623	1864	120	163	98.2	1885	97.8	100.8	103
1801–10	.817	1865	141	175	97.3	1886	97.8	99.6	102
1811–20	.910	1866	153	172	98.2	1887	98.6	100.3	100
1821–30	.796	1867	172	164	98.2	1888	99.2	102.1	100
1831–40	.872	1868	167	165	96.4	1889	99.6	102.1	100
1841–50	.852	1869	174	163	96.4	1890	100.0	100.0	100
1851–60	.975	1870	175	157	95.5	1891	99.7	101.4	99.8
		1871	178	148	95.5	1892	100.3	99.5	99.8
		1872	174	147	95.5	1893	100.2	102.0	99.6
		1873	175	149	95.5	1894	96.7	97.4	99.1
		1874	170	145	95.5	1895	97.4	95.5	99.4
		1875	161	141	93.6	1896	98.5	93.3	99.1
		1876	156	134	93.6	1897	98.2	94.0	98.9
		1877	146	131	93.6	1898	99.0	96.4	99.0
		1878	142	126	93.6	1899	100.2	97.2	98.5
		1879	140	123	93.6	1900	103.1	98.7	98.0
		1880	137	125	93.6	1901	104.8	102.7	97.4
						1902	108.2	108.3	96.6
						1903	111.2	107.7	95.9
						1904	111.1	109.1	95.2
						1905	112.8	109.8	95.2

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[1] Data from Report of Massachusetts Bureau of Statistics of Labor for 1885, p. 455.

[2] Data from Mitchell, *Gold, Prices, and Wages under the Greenback Standard*, pp. 242–244. The cost of living here is based upon retail prices and covers rent as well as food, etc.

[3] Based upon statistics covering 21 industries given in the Aldrich Report on Wholesale Prices, Wages, and Transportation.

[4] Statistics for 1881–1889 cover 25 city occupations, and are based upon data given in Bulletin of the Bureau of Labor, No. 18, p. 669. Statistics for 1890–1905 cover 349 occupations, and are based upon data given in Bulletin of the Bureau of Labor, No. 65, p. 20.

[5] Wholesale prices from 1881 to 1889, based upon data given in the Aldrich Report on Wholesale Wages, Prices, and Transportation, Part I, p. 99. Retail prices of food from 1890 to 1905, from the Bulletin last cited.

[6] From the Aldrich Report and Bulletin cited above. After 1890, statistics are based on hours of labor per week.

Regarding the second proposition, we may say that reliable English investigations show that more than one fourth of the population of the cities of London and York are below the poverty line. To be sure, it is not easy to determine definitely how poor a person must be in order to be "in poverty," but the statement just made is based upon standards that are undeniably conservative. But a number of those actually in poverty have enough income to purchase the minimum physical requirements if they knew how to spend their money wisely. In the city of York 9.91 per cent of the population had insufficient earnings for minimum requirements estimated at $5.25 per week for a family of five. This minimum is very low, and it is easily within the mark to say that at least a fifth of the population of York did not have in 1899 a sufficient income for a decent existence. In the United States the proportion of the urban population below the poverty line is probably somewhat less, but reliable statistics cannot be quoted.

A recent writer has estimated that ten million persons in the United States are in poverty, not all in distress, but "much of the time underfed, poorly clothed, and improperly housed." The estimate is based on statistics of unemployment, returns of boards of charity, court records of evictions, and pauper burials. Whatever the actual figures may be, they would doubtless be startling in comparison with statistics of our industrial progress.

Causes of Poverty and Riches. — The explanations of poverty and riches may be divided into two classes: (1) those that emphasize individual responsibility, and (2) those that emphasize social responsibility. According to the first, a comfortable fortune is the reward of efficiency, and poverty the penalty of inefficiency. To find fault with existing wealth distribution, it is alleged, is to find fault with nature for making individual differences in ability so enormous. That there are idle and worthless persons among the rich is not to be denied, but they, it is said, are to be regarded as the exceptions. As a class, according to this view, the rich add more to the wealth of society than they consume, and they do not in reality deduct anything from the income of the lower classes.

Those who emphasize the second explanation, on the other hand, point to the existence of all sorts of special privileges which enable the few to levy toll on the commerce of the nation. They assert that the fortunes of most millionaires originated under the shelter of some monopolistic enterprise. As to the poor, they call attention to the fact that inefficiency may be the result of poverty as well as the cause of it. Society must, therefore, take active measures to better the environment of the poor. They must be taught to live wisely, and their children must be given a fair chance in life. Children who do not get enough to eat when young cannot be expected to take care of themselves when they are men and women.

> "The prime importance of monopoly privileges in the distribution of wealth is shown by the results of the investigation of the New York *Tribune* (1892) in its efforts to ascertain the sources of the fortunes of the millionaires of the United States. That investigation was undertaken to show that the system of protection has not been the main cause for monopolies and great fortunes. The investigation amply demonstrated this proposition. Of the 4047 millionaires reported, only 1125, or 28 per cent, obtained their fortunes in protected industries. The following partly estimated summaries are based on the *Tribune* report. They show that about 78 per cent of the fortunes were derived from permanent monopoly privileges and only 21.4 per cent from competitive industries unaided by natural and artificial monopolies. Yet there can be no question that if these 21.4 per cent were fully analyzed, it would appear that they were not due solely to personal abilities unaided by these permanent monopoly privileges. They were mostly obtained from manufactures, and five sixths of the manufactures of the country are based on patents. Besides, fortunate investments in real estate, stocks, etc., have often contributed to fortunes where they do not appear prominently. Furthermore, if the size of the fortunes is taken into account, it will be found that perhaps 95 per cent of the total values represented by these millionaire fortunes is due to those investments classed as land values and natural monopolies and to competitive industries aided by such monopolies."[1]

Those who take this second view do not deny that individual differences in ability exist and are a cause for a difference in fortune. But they think that conditions are such that differences in reward are quite out of proportion to the difference in ability. A little shrewdness may accumulate a fortune just as the touch of a child's hand may start a bowlder down the mountain side.[2]

The controversy as to the ultimate responsibility for poverty cannot be settled by an appeal to the results of the investigations that have been made as to the immediate causes of poverty. The investigation in the city of York, before referred to, gives the following as to the immediate causes of primary poverty, that is, where the income was insufficient to provide the minimum requirements for physical efficiency even if wisely spent: —

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[1] Commons, The *Distribution of Wealth*, p. 252.

[2] The relation of competitive wages to efficiency is discussed in Chapter XXII.

TABLE IV

IMMEDIATE CAUSES OF "PRIMARY" POVERTY[1]

Malthusian Redundant population
Socialist Property
Single taxer property
[illegible] competit[illegible]
Anarchist government
etc

	PER CENT OF POPULATION IN POVERTY
Death of chief wage earner	15.63
Illness or old age of chief wage earner	5.11
Chief wage earner out of work	2.31
Irregularity of work	2.83
Largeness of family, *i.e.* more than four children	22.16
In regular work but at low wages	51.96
	100.00

[1] Rowntree, *Poverty*, p. 120.

Is Greater Diffusion Possible? — Most people agree that a greater equality of possessions would be desirable if it could be brought about without any confiscation of the real earnings of the more efficient members of society. The idea of a leisure class whose mission is to further culture without great contribution to the production of what it consumes, does not find much favor in this democratic age. The disadvantages of wide extremes in wealth have been so often pointed out by social philosophers that they need not be emphasized here. But those who believe that the competitive system roughly apportions rewards according to individual production will say that nothing can be done directly to diffuse wealth. That each individual should bear the consequences of his own conduct, they think is necessary as a discipline for the race. "Give the children of the shiftless, by thoughtless charity or various systems of poor relief, the right to eat the substance of the efficient and the prudent, and you will soon lose both the capital and the morality under which that capital has been created,"[1] says a writer of this class.

Those, on the other hand, who think that something can and should be done directly, question the possibility of discovering the separate productivity of workers under modern complex industrial conditions with any degree of exactness, and think there is little danger of discouraging industry and thrift. If the highest incomes were $100,000 per year, men would struggle just as hard as they do now to get into the highest class.

If we take the view that something can be done to lessen the extreme inequality in wealth distribution that exists at the present time, it is necessary to formulate some programme of social reform. In framing such a programme it must be remembered, on the one hand, that the right of private property is not an absolute right. No one has a vested interest in that institution, and we are at liberty to make such modification in the institution as will contribute to the social welfare. For the present the measures here advocated are not in the slightest danger of being carried so far as to discourage that wealth-getting ambition which is considered by many to be essential to progress. On the other hand, there is danger of injuring by wrong methods the very persons whom it is desirable to elevate. Indiscriminate charity may convert poverty to pauperism.

Pauperism

> "This distinction between the poor and the paupers may be seen everywhere. There are, in all large cities in America and abroad, streets and courts and alleys where a class of people live who have lost all self-respect and ambition, and who rarely if ever work, who are aimless and drifting, who like drink and who have no thought for their children, and who live aimless and contentedly on rubbish and alms. . . . In our American cities, Negroes, Whites, Chinese, Mexicans, Half-breeds, Americans, Irish, and others are indiscriminately housed together in the same tenements and often in the same rooms. The blind, the crippled, the consumptive, the aged, — the ragged ends of life; the babies, the children, the half-starved, underclad beginnings in life, all huddled together, waiting, drifting. This is pauperism. There is no mental agony here; they do not work sore; there is no dread; they live miserable, but they do not care.
>
> "In these same cities, and indeed everywhere, there are great districts of people who are up at dawn, who wash and dress, and eat breakfast, kiss

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[1] Hadley, *Economics*, p. 49.

wives and children, and hurry away to work or to seek work. The world rests upon their shoulders; it moves by their muscle; everything would stop if for any reason they should decide not to go into the fields and factories and mines. But the world is so organized that they gain enough to live upon only when they work; should they cease, they are in destitution and hunger. The more fortunate of the laborers are but a few weeks from actual distress when the machines are stopped. Upon the unskilled masses want is constantly pressing. As soon as employment ceases, suffering stares them in the face. They are the actual producers of wealth, but they have no home nor any bit of soil which they can call their own. They are the millions who possess no tools and can work only by permission of another. In the main they live miserably, they know not why. They work sore, and yet gain nothing. They know the meaning of hunger and the fear of want. They love their wives and children. They try to retain their self-respect. They have some ambition. They give to neighbors in need, yet they are themselves the actual children of poverty."[1]

We shall not discuss here the methods of alleviating the suffering that comes from poverty. The best methods of charitable relief are necessary as palliatives, but they cannot cure the evils of poverty. Two classes of reform measures should be distinguished: (1) those that aim to alter the methods of wealth acquisition in the future, and (2) those that aim to diffuse the excessive accumulations of the past.

relieve
preven

Modifying the Methods of Wealth Acquisition. — These methods again fall into two classes: (*a*) prevention of improper methods of wealth accumulation; (*b*) eliminating or strengthening the inefficient members of society. Under the first of these falls the problem of reducing to lower terms such incomes as are individually unearned. There must be such control of monopolistic privileges as to keep them from being the means of exploiting the masses. Fraud and favoritism must be eliminated so that income shall not be wholly out of proportion to service or needs.

The second class includes a large variety of methods. (1) It is possible to do something to prevent defective human beings from being born. There is a growing sentiment in favor of preventing the marriage of persons who are not fit for marriage. No individual would be deprived of any important right if a medical certificate of good health were made a condition precedent to the

individual

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[1] R. Hunter, *Poverty*, pp. 3–5.

granting of a marriage license. (2) Education should be made compulsory with the endeavor of making the rising generation not only efficient producers of wealth, but also wise spenders of what they receive. (3) It is possible to provide against the misfortunes of life by insurance of various kinds. If men will not voluntarily make provision for themselves and for those dependent upon them in cases of sickness, accident, old age, and premature death, they should be helped to do so indirectly by some comprehensive system of workingmen's insurance and old age pensions. (4) The solution of the problem of unemployment depends upon more indirect measures, such as monetary and banking reform, which steady the progress of industry, although European experiments show that there are possibilities in insurance against unemployment. (5) Opportunities for saving should be multiplied. The establishment of postal savings banks would be of some assistance. (6) The health and vigor of the people should be improved by sanitation and by legislation which improves the conditions of work.

The Diffusion of Wealth. — To some extent large fortunes disappear without governmental interference, but it takes comparatively slight ability to maintain an inherited estate. It does not seem practicable or desirable to limit directly the total amount of wealth which a man may own, but there is no reason why the government should refrain from consciously encouraging the diffusion of wealth. The regulation and taxation of inheritances seems to be the proper remedy in this connection, even if its action is somewhat slow.

QUESTIONS AND EXERCISES

1. Can anything be said in favor of a leisure class?
2. Would Mr. Carnegie's plan of levying an inheritance tax of 50 per cent destroy the incentive to work?
3. Explain the various systems of poor relief.
4. Describe the German system of compulsory insurance.
5. Describe the old age pension system in Australia.
6. What objections have been offered against postal savings banks?
7. Discuss the following statement: "We have, then, little reason for expecting that the prevailing insecurity in the lot of the modern workman will ever be removed by the development of individual thrift." — A. S. Johnson, *Political Science Quarterly*, Vol. XXII, p. 244.

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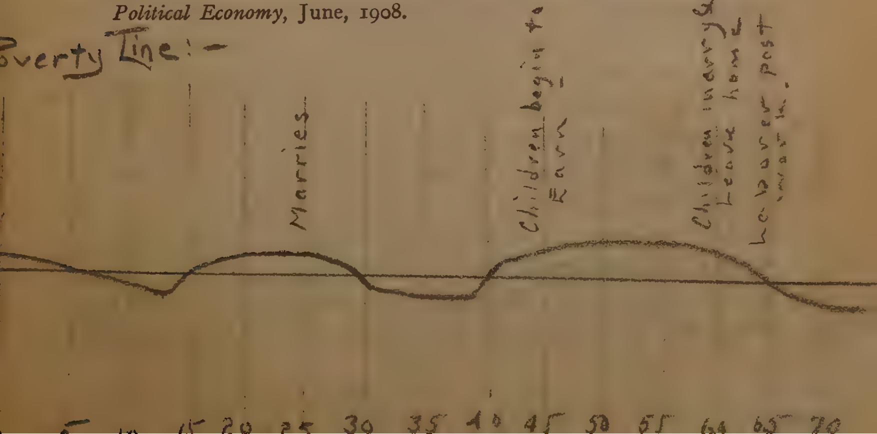

CHAPTER XXI

THE RENT OF LAND

RENT is the price paid for the services of land. In common usage the meaning of the word is, however, much less exact. That which one pays for the use of durable goods of any kind owned by another is commonly called rent. The payment for the use of a house or a business building is, for example, counted as rent. We shall see that in this case the so-called rent really consists of two elements, — one a ground rent, or rent proper, the other capital rent, or what we shall call gross interest. If this distinction seems fanciful, it is only because we are accustomed to see the two united under one ownership. But in most large cities separate ownership is common. Sometimes one man owns the land and leases it for a long term of years to another who erects buildings upon it, which, either with or without payment, become the property of the landowner at the expiration of the lease, unless it is renewed, and if it is renewed, the one who possesses the building must frequently pay for it. Often, however, the separation in ownership is a permanent one, the house owner paying perpetually an annual sum for the use of the ground. This is the case in Baltimore, for example, where ground rents are an important feature in the economic life of the city. In such cases the two kinds of income are very clearly distinguished.

Some modern economists have extended the meaning of both rent and interest, using them as two different ways of describing one form of income, rather than as two distinct kinds of income. This usage is based on the obvious fact that the rent which a landlord receives for an acre of land may easily be computed as a certain rate of interest on the money value of the land, just as the amount earned by a machine may be viewed either as the rent of the machine or as interest on its money value. But we shall see later that the income from other production goods, while governed in part by the same laws that control the income from land, is also governed in part by very different laws. Without dwelling further upon this distinction at this stage of our discussion, let us remember that in the great majority of economic writings the term "rent" means only an income from land, and that it is used only in this sense in the following discussion.

The Services of Land. — The first thing to be noted about land is its *quality*. Differences of fertility are familiar to every one, and depend upon what has been known as the "original and indestructible properties of the soil." An effort has been made by certain writers to minimize or deny the significance of this factor. It has been said that "soil" is not indestructible, that it may be exhausted or removed from land altogether, and that it may in turn be created by means of fertilization. These writers recognize in land no other indestructible property than standing room. This objection arises from the use of the word "soil" in a narrow sense. If by "soil" we mean only that thin top layer containing some elements necessary to plant life, it is true that this may be carted on or off at pleasure, that it may be wasted or replenished. But, granting this, there still remain many qualities of land which are indestructible and unproducible, and which so directly affect the productiveness of the land that we may not inappropriately call them "properties of the soil." Such a property is the conformation of the land. A steep, gravelly hillside will by no possible effort equal a plain in fertility. The north side of a mountain cannot be made to produce the same as the south side. Climate is not, to be sure, a "property of the soil," but it is an inseparable appurtenance of the land, and upon it the productiveness of the land primarily depends. It is needless to say that the ownership of a piece of land carries with it the advantage of all the conditions which attach to that land. It is simply true, therefore, that the expression "original and indestructible properties of the soil" is an inadequate and misleading expression; not that there is nothing but standing room to be considered under such a term.

We will, therefore, adopt another expression to explain what we mean by quality in land; namely, the *irremovable conditions affecting its productiveness.* Of these its extent (standing room), its conformation, and its climate are essentially original and indestructible. Others, such as are connected with the "soil" in the narrow sense, are not indestructible nor necessarily original, but they affect rent none the less. In defining quality as the conditions affecting productiveness of land, we have discarded the word "soil" because it has proved itself treacherous; we have omitted the words "original and indestructible" because fertility may be artificial, and is always destructible. On the other hand, fertility, even when artificial, becomes essentially a property of the land. While it is physically removable, it is not economically so. From the case where capital is embodied in land and entirely assimilated to it in character, we pass by insensible gradations to fences, barns, houses, etc., which more and more assume the character of capital as distinguished from land. It would be possible to restrict the term "land" to strictly natural land, and apply the term "capital" to all products, including the soils of old land. This would be a logical distinction, but, like so many logical distinctions, it would be confusing. On the other hand, if we include under land all capital that has been incorporated in it, we must recognize that there is no absolute line of division between land and capital. Thus we are again reminded that distinctions in economics, as well as in practical life, are questions of convenience, and are good or bad according as they are more or less useful.

The second great fact regarding land is *location.* On one side this is closely connected with climate. Land situated near a body of water or near a mountain range is much affected by these great controllers of climate. But a more distinct meaning of the word is location with regard to the consumers of products. Everybody knows that land a hundred miles from market is, other things being equal, worth more than land a thousand miles from market. This, however, is a question of accessibility rather than of mere distance. Land may be far away and yet easy to reach, or near and difficult of access. It will be noted that any change in the cost of transportation affects rents. The rents of England have been revolutionized by cheap ocean transportation, which has practically brought distant land very near to her shores. To this fact of location we must ascribe almost wholly the enormous rents paid for city lots. Here, again, transportation facilities, such as are afforded by good rapid transit systems, powerfully affect rents.

One important difference in the way quality and location affect rent must, however, be noted. The quality of a piece of land affects the amount of its physical product; it determines how many bushels of wheat or how many pounds of cotton it will yield with a given amount of cultivation. The location of land does not, it is true, affect the amount of its physical product, but it does affect the price of the product, since that varies with the expense of transporting the product to market. The value of a piece of land to the user depends upon the value of its yield, which is ascertained by multiplying the number of units of product by the price per unit. Suppose a man owns two wheat farms of equal size, one in Dakota and one in Illinois. If the farm in Dakota produces thirty bushels of wheat to the acre, and it costs twenty cents a bushel to get it to the Chicago market, where wheat is selling at a dollar per bushel, while the farmer in Illinois produces twenty-five bushels to the acre, and it costs four cents a bushel to get this to the Chicago market, the farms are equally productive so far as the owner is concerned, for in each case he will get $24 for an acre's yield of wheat. If the other conditions of production are the same, the farms are equally valuable to the owner. From the social point of view, too, one of the farms is as good as the other. For the costs of transportation, of moving things to where they are wanted, have to be counted among the legitimate and necessary costs of production. In short, we may say that the two pieces of land are equally *good* land. When we speak of good land, therefore, in connection with the subject of rent, we mean land which for all purposes taken together is desirable.

Rent under Assumed Conditions of Uniform Intensivity of Cultivation. — The first settlers in a new country have no need to

& population the
depends more & more

pay rent. They find plenty of land, and even the best of it will be a free good, like air or water. So long as any man can get land of the best quality free, there is no reason why he should pay rent to any one else. But this fortunate state of affairs will last only so long as some of the best lands remain unoccupied. When increase in the population makes the utilization of inferior lands necessary, the owners of the better lands will be able to demand and receive a rent for the use of their lands. This will be made clear by reference to Figure 1, which is constructed on the assumption that there are six grades of land, *A*, *B*, *C*, *D*, *E*, and *F*, and that for all these lands the same amount of cultivation per acre is necessary. The successive rectangles represent the selling value of the product that can be raised on one acre of each of these different grades of land, by the use of a fixed amount of labor and capital. The product of an acre of the best land, *A*, will sell for *Oamy* dollars. Until all of this best land is occupied, no rent will be paid, and the entire value of the product will be available for the expense of the capital and the wages of labor employed in its cultivation.[1]

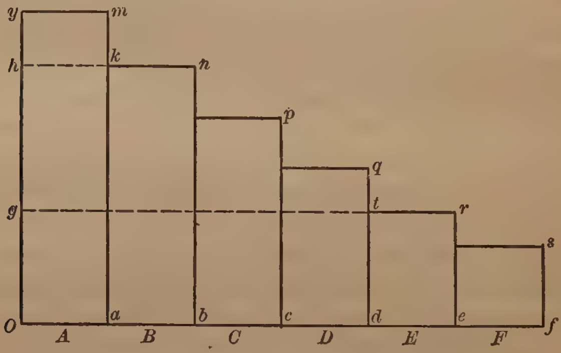

FIG. 1

As soon, however, as it becomes necessary to cultivate some of the *B* lands, the situation will be altered. The owners of the *A* lands can now exact a rent for their use, and the farmer has no alternative, except to utilize land of the second grade, on which the fixed amount of labor and capital will only produce a product per acre selling for *abnk* dollars. The rent which will be charged per acre for *A* lands will amount to the difference between the value of the products of the two grades of land (*hkmy* in the diagram). For if the landowners attempt to charge more than this difference, the farmers will find it more advantageous to use the *B* lands; if they charge less, the *A* lands will be the more remunerative to the farmer, and competition among the farmers for the leases of *A* lands will force the rent up. In short, rent will normally be fixed at the point which will just equalize the advantages of cultivating the two kinds of land.

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[1] The profits which the farmer may receive as entrepreneur do not affect the analysis, and may accordingly be neglected.

As soon as increased population and the consequent need of a larger food supply and more raw materials have forced men to begin to cultivate lands of the *C* grade, the *B* lands will command a rent, while the rent of the *A* lands will be increased by an amount equal to the rent of the *B* lands. And as cultivation is pushed down to still poorer and poorer lands, the rents which these better lands command will be still further increased. Thus, when some lands of grade *E* are in use, the value of the product which can be got from this free land, by the use of the fixed amount of labor and capital, will be *dert* dollars per acre. This sum will just pay the cost of labor and capital, for if it amounts to less than these expenses of production, the *E* lands will not be worth cultivating; if it amounts to very much more, it will pay to cultivate still poorer land. But if *dert* dollars will just pay wages and interest on the *E* lands, the same amount will pay wages and interest on the better lands, for we have assumed that the same amount of labor and capital is used on each grade of land. The expense for labor and capital will, therefore, be represented on each rectangle by the area below the line *gt*, while the area above this line will represent in each case the rent per acre which the landowner will receive.

Rent, under these conditions, is a differential which measures accurately the superiority of the rent-bearing land over the *marginal land* — the land which just repays the expenses of cultivation. It is not necessary to the significance of the theory that all, or even any, of the farmers should be tenant farmers. If the farmer owns the land that he operates, the part of his income which measures the superiority of his land over an equal area of marginal land, must, in any accurate analysis, be counted as rent.

Rent under Actual Conditions. — The conditions assumed in the foregoing analysis depart from actual conditions in one important particular, — the assumption that equal amounts of labor and capital, that is, a uniform intensivity of cultivation, would be applied to lands of different grades. As a matter of fact, even after the *A* lands are all occupied, the supply of agricultural products can be increased without resort to poorer lands. All that is really necessary is the more intensive cultivation of the *A* lands. This cannot be done, however, without encountering the law of diminishing productivity. Successive equal amounts of labor and capital used on the same lands cannot be expected to yield uniformly large increments of product. It will pay, however, to make use of more intensive cultivation up to the point where the last unit of labor and capital adds barely enough to the product to pay for the increased expense, — a point which is called the *intensive margin.* The result of this more intensive cultivation is represented in Figure 2. Now the first rectangle in this diagram (*Oamy*) represents precisely the same thing as is represented by the first rectangle in Figure 1, the return (in value of product) from the cultivation of an acre of land of *A* grade by the use of a fixed amount of labor and capital. The second rectangle in Figure 2, however, represents the additional product resulting from the use of a similar unit of labor and capital on the *same acre*, while the third represents the increment of product due to the employment of yet a third unit of labor and capital on the same land. Assume that this third unit, A_2, adds just enough to the selling value of the

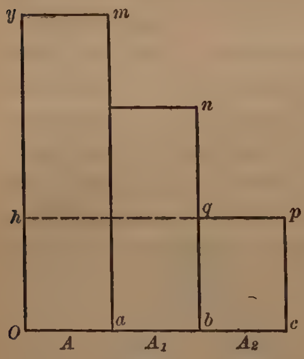

FIG. 2

product to pay for itself. Then, as already explained in the discussion of diminishing productivity, the area *Ocph* will represent that part of the farmer's income which will be used up by the expense incurred for the three units of labor and capital used on this one acre of land, and the area above the line *hq* will represent the real rent of that acre. If land *E* (Figure 1) just repays the expenses of cultivation when one unit of labor and capital is used per acre, the value of the product per acre of this land will equal the value of the increment of product attributable to the third unit of labor and capital used on land *A*. (That is, the area *dert*, Figure 1, equals the area *bcpq*, Figure 2.) So far, then, as the margin of cultivation is concerned, Figure 1 represents the conditions accurately. The productivity of capital and labor at the intensive and extensive margins are the same. But Figure 1 does not represent the complete theory of rent in that (1) it does not indicate the fact that larger quantities of capital and labor are used on the better lands than on the poorer lands, and (2) it does not represent the larger products due to this more intensive cultivation of the better lands. These considerations are taken account of in Figure 3, which also, by the substitution of curves for successive rectangles, represents the infinite variety of degrees of goodness of the different acres making up the land supply of a country. In Figure 3 the line *am* represents the value of a product of a unit of labor and capital on the poorest land in use, and the area *hmi* represents what rent would be under conditions of uniform intensivity of cultivation. The area *Oamg* represents the diminishing amounts of labor and capital used per acre as we pass from the better to the poorer lands, while the

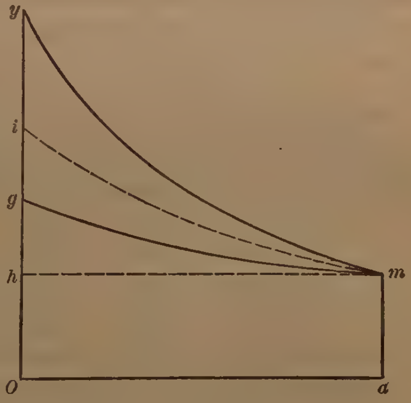

FIG. 3

area *ymh* represents the rent per acre of the different grades of lands. The foregoing analysis leads to the following statement of the theory of rent, which the reader may verify for himself by referring to Figures 1 and 2: —

The rent of any piece of land is measured by the difference between the value of the products obtained from it by the use of the most profitable amounts of labor and capital and the value of the products which could be obtained by the use of the same amounts of labor and capital on marginal land, or at the intensive margin of cultivation.

This statement should not be understood as comparing the total product raised on a given piece of land with the total product which could be got from the same amount of marginal land. This would be to reintroduce the assumption of uniform intensivity of cultivation — an assumption which impaired the adequacy of the theory of rent illustrated in Figure 1 above. On the contrary, it is assumed in the present statement that the farmer would use whatever amount of the marginal land he found most profitable. If it were profitable to use twenty times as much labor and capital on a certain piece of land as on a similar amount of marginal land, to employ the same amount of labor and capital profitably on marginal land would take twenty times as much land.

Rent and the Marginal Product of Land. — In an earlier chapter it was suggested that rent could be measured by the marginal product of land; in other words, that the amount which a farmer would pay *per acre* for the use of land would depend upon the value of so much of his product as was dependent upon the possession of any one acre of land. In that discussion it was assumed, however, that land was of a uniform degree of goodness. Obviously, if all land really were of a uniform degree of goodness, in all ways equally desirable, no rent would be paid until all lands were utilized, when rent would arise on account of the necessity of increased intensivity of cultivation.

But even under the actual conditions of the existence of different grades of land and of a large body of land which is below the margin of cultivation, the rent of any acre of the better lands can be stated in terms of the value of its product. For the rent of any acre of land is measured by the value of the amount of the product imputed to it (as distinct from the product imputed to the labor and the capital employed upon it). Now the product that must be imputed to any acre of land is, of course, the amount which it *adds* to the total product, or, what amounts to the same thing, the amount by which the total product would be decreased if just as much labor and capital were employed in agriculture, but if this particular acre of land were not available. This means, however, that the labor and capital which would have been employed on this land would have to be utilized either in cultivating the lands already utilized more intensively or in cultivating lands previously uncultivated; that is, at either the intensive or extensive margin. Obviously the product imputed to the land in question would be the difference between the total product got from it and the product which would result from the employment of the same amount of labor and capital at the margin. Thus, by a somewhat different line of analysis, we have again reached the statement of the theory of rent given in the preceding section.

The Different Uses of Land. — We have seen that the better lands will repay a more intensive cultivation than the poorer lands, and have found this fact to be of great significance in the theory of rent. By varying degrees of intensivity of cultivation we do not mean only the more thorough cultivation of the land in the raising of any one crop. Land produces a great variety of products, and some of these need much more intensive cultivation than others. In the business of raising cattle, as it is conducted on a large Western ranch, the total investment of capital and labor may be very considerable, but the investment per acre of land is very small indeed, while a small market garden, located near a great city, will repay a very high degree of intensivity of cultivation. It is only on the best lands that crops necessitating a large amount of labor per acre can be raised profitably. By the best lands we mean in this connection not only those lands which are best fitted by soil and climate for the production of particular crops, but the best lands in the sense that they are nearest the market. For example, cities in the eastern part of the United States get part of their supply of fresh vegetables from market gardens in their own environs, while another part of this supply may come from the Southern states and even across the continent from California. The local market gardens are good lands on account of their situation; the more distant lands are good lands on account of special qualities of soil or climate which enable them to furnish "out of season" vegetables.

Because certain lands are adapted, on account of quality or location, for intensive cultivation, they command high rents.

On the other hand, lands which command high rents generally have to be cultivated intensively, because the entrepreneur is forced by the very fact of high rent to economize in his use of land as compared with his use of capital and labor. The raising of flax as raw material for linen is a profitable agricultural industry in densely populated Belgium, but it has never met with much success in the United States because flax straw of a quality fit for the better grades of linen demands a large amount of care and labor. Land is so plentiful here that it pays us better to specialize in a less intensive kind of agriculture — to spread our labor and capital more thinly over a larger number of acres.

The poorest land that can be profitably used in the growing of any one kind of product is not necessarily marginal land. Land too poor to use for market gardening may be good wheat land; land too poor to devote to wheat may be good grazing land. The poorest land devoted to any one purpose may yield a rent, arising from its relative superiority for some other use. It will be readily understood that the marginal lands used as a basis of comparison in our statement of the law of rent are the poorest lands used for any purpose — grazing lands, possibly. But, as we have seen, rent may also be measured from the intensive margin of cultivation, and the intensive margin is found on all lands, even the best.

Although all our illustrations of the theory of rent have been drawn from agriculture, the theory is, in fact, perfectly general. The rent of land used for industrial or commercial purposes is determined in precisely the same way as the rent of agricultural land. In fact, different kinds of manufacturing, wholesale and retail trading, quarrying, forestry, etc., may be looked upon as different possible uses of land, differing in the amount of labor and capital they require, and all subject to the law of diminishing productivity, and hence to the law of rent. When we pass from the agricultural uses of land to its commercial and industrial uses, the fact of quality becomes of practically no importance in the determination of rent, while the fact of location becomes the fundamental one.

In addition to these different productive uses of land, we have to take account of its other uses, such as for pleasure grounds and residence sites. Here the explanation of rent is simpler than in the case of productive lands. For these lands yield their utilities directly, and hence come under the general law of value. Such lands command a rent on account of their capacity to satisfy human wants directly, the extent of this capacity being measured by their marginal utility. In the case of productive lands, it is only their products that satisfy human wants directly. The lands themselves are valued according to the specific share of the valuable product that can be imputed to their productivity, as distinct from the productivity of labor and capital.

The Capitalization of Rent. —To the individual who has a certain amount of money for which he is seeking the most profitable use, the question whether he shall invest it in land or other form of production goods is apt to be in itself an unimportant one. If he chooses to buy land, it will be because he can get a satisfactory income from it, and he will very properly count the income as interest on the money he has invested in the land. If the income from the land increases, the selling value of the land will increase. From the point of view of our investor this will, of course, be an increase in the "capital value" of the land. It is important to note, however, that the land does not return an income simply because it is valuable. The process is the reverse of this. The land aids annually in the production of goods which command a price in the market; a part of the value of this annual product is imputed to the service of land and paid for in the form of economic rent; and the land is valued *because it commands a rent.* The value of the land is governed by its income-yielding power.

This fundamental fact is apt to escape our notice because in the United States lands are more commonly sold than rented, so that we think of the value of lands as the prices at which they will sell, rather than their annual value, or rent, although the first kind of value is derived from the second. In England, where lands are more commonly rented, the value of land is usually thought of as its annual value or rent, while the selling value is often expressed as "twenty (or other number of) years' purchase," meaning twenty times the annual rent. The process by which the capacity to yield a certain annual income is made the basis for the determination of a certain selling price is termed "capitalization."[1] In a country which is growing in population and wealth, and where land rents are consequently increasing, the selling value of land is apt to be somewhat greater than a capitalization of the amount of income it is yielding at the time of the sale would justify. This is because the ownership of land carries with it the right to receive future as well as present incomes, and the prospectively larger future incomes are taken into account in the process of capitalization.

Rent and Social Progress. — The fact just mentioned — the tendency of rents to increase as society progresses — is of very great significance. It springs from the impossibility of satisfying the increasing wants of a society which is growing in population and wealth without increasing the supply of food products and raw materials by means of more extensive and more intensive cultivation. As this means pushing downward the extensive and intensive margins of cultivation, the necessary result is a rise in rents.

During the early years of the nineteenth century the Napoleonic wars on the continent, together with a high protective tariff in England, kept England from importing any grain from Europe. This, coupled with a considerable increase in the population of England, resulted in very high prices for wheat, a rapid extension of cultivation, and a remarkable rise in rents. It was the effort on the part of economic writers to explain these facts that led to the formulation of the theory of rent in substantially its present form. Bound up with this theory of rent was the law of diminishing returns — the name usually given to the statement that the supply of agricultural products cannot be increased except by the utilization of poorer and poorer lands, and consequently at an increasing expense per unit of product. (This law should not be confused with the law of diminishing productivity. One is a statement of a historical tendency in one form of production — agriculture; the other relates to the proportions in which the factors of production are combined, and holds true for all forms of production.)

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[1] The nature of this process of capitalization will be discussed in the chapter on Interest. It is a fact of common observation that the rate of capitalization, that is, the ratio of income to selling value, is lower in the case of land than in the case of most forms of capital goods. The durability of land, the variety of uses to which it may be put, and the social prestige attached to land ownership are among the things that account for this.

This law of diminishing returns has been made the basis of many gloomy prophecies regarding the possibilities of a general and continued economic progress. Especially when this theory was combined with the Malthusian theory of population, which was based on the belief that population would tend to increase as fast as the food supply would permit, did it seem to point to insuperable barriers in the way of any considerable progress in human welfare.

The history of the past century has belied these gloomy prophecies. The increase in population has been greater than in any previous period of the world's history, and yet, so far as agricultural lands are concerned, the general level of rents has not increased. In fact, the change has been in the other direction. That rents have not increased as population has grown, does not disprove the law of diminishing returns. That law, like other economic laws, is true only as a statement of a tendency. If this tendency has not resulted in increased rents, it is not because it has not been operative, but because other powerful factors have counteracted its effects. Two things, at least, have prevented a rise in rents. In the first place, improvements in agricultural methods have greatly increased the product which can be got from a given acre of land. We must include here not only improvements in methods of tillage and cultivation, in fertilizers, in the varieties of plants, in breeds of live stock, etc., but also organized social methods looking toward a better utilization of the nation's land supply, such as the irrigation of dry lands, and scientific forestry, which latter has an important influence upon the conservation of the rainfall.

Of much greater importance, however, than all these things taken together, has been the revolution in ocean and land transportation, which has so largely increased the available amount of land. Lands in England have gone out of cultivation because the railway and the steamship have brought the great wheat fields of America to her very doors. Even in the United States the new lands brought near to market by the railways have often been of better quality than the lands previously cultivated, so that the margin of cultivation has gone up rather than down. There were 2,250,000 acres of improved farming lands in the state of New Hampshire in 1850; by 1900 this acreage had shrunk to 1,075,000. In Massachusetts the improved farm lands decreased in this period of fifty years from 2,135,000 acres to 1,300,000 acres. Similar figures could be given for others of the older states. The diminution in the use of old lands may be partly accounted for by their deterioration in fertility under continual cultivation without proper rotation of crops. But this is only a partial explanation, for any one who is familiar with the conditions knows that even the most careful tillage could not have kept millions of acres of farm land which were once rent-yielding from going below the margin of cultivation, for the simple reason that the margin of cultivation rose. The railway practice of making very much lower rates per mile on long hauls than on short hauls has hastened this progress, by minimizing the disadvantages of lands of good quality situated at a distance from the market.

The fact that since the introduction of the railway the margin of cultivation has risen does not mean that it has risen continuously, or that it will continue to rise. There are many who believe that we have only gained a brief and already passing respite from the day when every increase in the demand for food products and raw materials will be met only with increasing difficulty. It is as dangerous to prophesy, however, as it was a hundred years ago. The fact that there still remain some unutilized lands of good quality in what are now out-of-the-way parts of the world may prove to be of less importance than other things. It is a striking fact that in the United States to-day only about half of the land actually in farms is cultivated. Some of these uncultivated portions of farms are very poor lands, and others are given over to meadows and pastures. But we venture to say that this idle acreage is due in part to a lack of correspondence between the historical conditions that have fixed the size of farms and the economic conditions that fix the number of acres that can be profitably utilized by one farmer. This unexploited area is, to that extent at least, a reserve which can be drawn upon as the demand for agricultural products increases. Then, too, we are just beginning to have some idea of the improvements which scientific selection may bring about in the qualities and productiveness of different kinds of plants; methods of fertilization and tillage are still the subjects of fruitful scientific inquiry; forestry and irrigation are yet in their infancy. Changes in demand, of such a nature as to make possible the utilization of some lands for the production of crops for which they are better fitted than for their present uses, are also among the things that may resist the tendency toward a general rise in rents. In fact, although it is absurd to suppose that the rent of land will not increase as society continues to increase in wealth and numbers, it is just as absurd to make this fundamental tendency toward diminishing returns in agriculture a basis for pessimistic views regarding the possibility of economic progress.

The Unearned Increment. — When we say that the margin of cultivation has gone up, rather than down, since 1850, we do not imply that rents have not, in many cases, increased. The new lands opened up to use by new railways, for example, are at first very cheap lands, often free lands. As they are taken up, they command higher and higher rents. Practically all of the agricultural lands now utilized in America have had such a history, — even though in some cases the present rents are not as high as their rents at some previous time. The fact that, through the change in transportation methods, the marginal farming lands of to-day are better lands than the marginal farming lands of sixty years ago does not affect the fact that the sum total of land rents, and consequently of land values, is immensely greater to-day than at any previous time. The increase in the value of land which accompanies the increase in its income-yielding power is often called the *unearned increment*. This phrase suggests that the increase in land values cannot be attributed to any special effort on the part of the owners of land, but is due to general social causes.

This does not mean that the land-owning farmer cannot increase the selling value of his farm by wise investments of capital; but, remembering that rent is the payment for the irremovable conditions affecting the productiveness of land, it is clear that it can be affected only to a comparatively small degree by the efforts of individual landowners. Most of the present values of lands have grown out of that complex of things which we call general social progress, the most important of which in this connection are growth in population and growth in average wealth — the things that lead to an increased demand for the products of the soil. Nor is the truth of this statement affected by the fact that the opening of new lands has been among the most powerful factors that have made possible this growth in population and wealth. A very large part of the increase in land values would have come about, even if the use of land and the ownership of land were entirely distinct, if all lands were leased, rather than owned, by the users of land. We should, however, be careful to distinguish the rise in the sum total of rents which springs from the occupation of new and often better lands, and the increase in rent *per acre*, which comes from forcing downward the margin of cultivation.

Some writers have suggested that landowners do not secure an unearned increment, because future as well as present earning power is taken account of in fixing the price at which land is bought. But whether the selling value of land is based on its present or future earning capacity, this selling value will increase so long as the earning capacity of the land increases, and so long as the increase in earning capacity promises to continue into the future. An unearned increment is attached to valuable land, whether it is still in the hands of the original owner, who may have got it for nothing, or whether its ownership has been transferred a hundred times. Most economists have seen in the unearned increment a fact of very great social significance, and some have even supported various plans by which some of the unearned value might be returned to society through special taxation.

An American reformer, Henry George, converted a large following to his view that all taxes should be levied upon land values. This scheme, known as the "single tax," proposes that economic rent shall go to the government in lieu of taxes — a proceeding which would amount to the government ownership of land, and is so understood by its adherents. The merits and defects of the single tax as a scheme for raising public revenue will be considered in another place. Here we are concerned with it simply as a scheme of economic reform. Henry George's main argument was based on the alleged tendency of land to absorb all the value due to "improvements in the productive power of labor." Among these improvements in the productive power of labor he included such diverse things as "the growth of population, the increase and extension of exchanges, the discoveries of science, the march of invention, the spread of education, the improvement of government," etc. "Land being necessary to labor, and being reduced to private ownership, every increase in the productive power of labor but increases rent — the price that labor must pay for the opportunity to utilize its powers, and thus all the advantages gained by the march of progress go to the owner of land, and wages do not increase."

In the first place, we may object strongly to the assumption that improvements in methods of production necessarily mean improvements in the "productive power of labor" — an assumption which, like the socialists' labor theory of value, really begs the whole question. It would be just as reasonable to call these things improvements in the productive power of capital or improvements in the productive power of land. In the second place, we must enter an emphatic denial to the statement that "all the advantages gained by the march of progress go to the owner of land." If the supply of labor is increasing more rapidly than the supply of land, it is probable that rent per acre will increase faster than wages per laborer; but this does not preclude an advance in wages.

It must be remembered, too, that Henry George did not propose to abolish rent, — an obvious impossibility, — but simply to do away with the private receipt of rent. This would prevent the withholding of land from use for purely speculative purposes; thus increase the available supply of land, and consequently lower rents. That such would be the immediate result of throwing all land open to use cannot be denied. But in the long run it would probably have little effect on rent, as it would simply lead to a more rapid exploitation of the land. Land ownership, like any other institution, has to be judged from the broad viewpoint of social interests. The "pride of ownership," as an incentive to accumulation and as a basis for good citizenship, cannot be lightly put aside.

Urban Lands. — The unearned increment is an especially significant phenomenon in the case of urban lands. In the modern city we have a tremendous mass of land values created by causes that are purely social, being an absolutely necessary result of the concentration of a large population on a relatively small area.[1] All are familiar with the narrow limits set upon the wholesale districts, the shopping districts, and the financial districts in American cities. The residence districts to which the greatest social prestige attaches are apt to be quite as narrowly restricted. Improvements in rapid transit facilities enlarge the residence areas that are utilized by people with moderate incomes, but only serve to increase the congestion in the business centers. There is much to be said in favor of the special taxation of city land values. Movements in this direction have already gained great strength in England and Germany. Taxes so heavy as to amount to confiscation would, in the opinion of the present writers, be unjustifiable, and, in the United States, unconstitutional.

QUESTIONS AND EXERCISES

1. Malthus and Ricardo differed as to whether rent is an *addition* to the total income of society. What is the correct view?

2. An accepted doctrine of taxation is that landowners cannot shift a tax on land values to any one else (as the tax on tobacco is shifted from the manufacturer to the consumer). Explain this on the basis of the theory of rent.

3. "Rent does not enter into the determination of price." Explain the meaning of this statement, understanding price to mean "normal value."

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[1] The assessed value of land, *exclusive* of improvements, in the city of New York, amounted in 1907 to over three and a half billions of dollars — an amount nearly twice as great as the assessed value of all the real estate, *including* improvements, in the state of New York outside of the city.

CHAPTER XXII

THE WAGES OF LABOR

WAGES constitute the price paid for the services of labor. Under the head of "labor" we include all the various kinds of personal services for which a payment is made. Professional men and salaried employees are wage earners in the economic sense, though the term is by common usage generally restricted to manual laborers working for daily or weekly payments. There is however, in society to-day, as every one recognizes, a "laboring class," marked off by lines that are fairly distinct, and including the great body of day laborers, factory hands, agricultural laborers, men in various trades requiring various degrees of intelligence and skill, employees in minor positions in business and mercantile establishments, and the like. Some of the most important and pressing present-day economic problems — the variety of things that make up what is often called the "labor problem" — relate to the economic position of this class. On this account it becomes of special importance to ascertain just what the rules are that determine its share in the national dividend. In the discussion of wages, then, we have in mind primarily the income of the "laboring class," although some of the principles that will be developed apply just as accurately to the other incomes that must be classed as wages in the economic sense.

Wages as the Price of Labor. — The definition of wages already given suggests at once the most important fact about them: they are the prices paid for particular kinds of services, and hence come under the general laws of supply and demand. So far as the wages of any one kind of labor are concerned, we can say, as we did of the prices of commodities, that they will tend to be fixed at the point where the supply of that kind of labor and the demand for it are in equilibrium. But, as was found in the discussion of the prices of commodities, this simple statement does not take us very far into the analysis of the problem. We want to know why the supply of labor and the demand for it are what they are. We shall find, too, that the factors governing the supply and demand of labor are in some respects very different from those governing the supply and demand of commodities.

The Demand for Labor. — The demand for labor is, in the last analysis, a demand for the products of labor. Labor does not command a price on its own account, but because it aids in the production of things that satisfy human wants. But how can we measure the product of labor? How can we distinguish it from the shares in the total product that are to be attributed to land and capital? We obviously cannot say that the product of labor is to be measured by the difference between the total product produced by the coöperation of labor, land, and capital and the product which would be produced by land, and capital working alone; for this last would, of course, be zero. The fact is, as we have seen in a previous chapter, that the proportion of the product that is attributed to labor is determined by the principle of *marginal productivity*. That is, we cannot think of the "product of labor," except as the product of the individual laborers making up the supply of labor, and the product of any individual laborer is actually and exactly the amount which he adds to the total product of land, labor, and capital; in other words, the amount by which the total product would be decreased if the labor of this individual laborer were not utilized. The social demand for the products of labor, which is the basis of the entrepreneur's demand for labor, is not a demand for any vague abstraction like the "product of labor in general," but is a demand for the concrete products due to the activities of individual laborers.

We must note also that in the case of labor, as in the case of commodities, the word "demand" must not be taken in a loose, indefinite sense. The demand for commodities means the quantities that will be taken at certain definite prices. The demand for labor does not mean anything unless it is understood to refer to the number of laborers that will be employed in a particular occupation at a certain wage. In a given occupation at a particular time wages might be fixed at any one of a large number of different possible points. The higher the wage, the smaller will be the number of laborers that an entrepreneur can afford to employ; and that for two reasons: In the first place, the higher wages 1. mean higher expenses of production, and consequently higher prices will have to be charged for the product — a fact which will reduce the quantity of the product that can be sold on the market, and consequently reduce the demand for labor. In the second 2. place, higher wages for labor will induce entrepreneurs to economize in the use of labor, and to use relatively more land and capital, according to the principles which have been explained in the discussion of diminishing productivity. The demand for any particular kind of labor is thus a complex factor, influenced both by variations in the demand for the products of that particular kind of labor, and in the proportions of the product that can be attributed to labor rather than to land and capital.

In a similar way the *elasticity* of the demand for any kind of labor — the extent to which variations in wages will affect the quantity of labor utilized — is a complex function, being affected not only by the elasticity of the demand for the particular products produced by this kind of labor, but also by the readiness with which more capital or more land, or both, can be substituted for labor, as labor becomes higher priced. In the printing industry, for example, a rise in wages would make it profitable for employing printers to use more labor-saving machinery, such as type-setting and linotype machines, automatic press feeders, and the like. The higher the wages of agricultural laborers, the more profitable will be the more extensive, as compared with the more intensive, uses of land. On the other hand, the reader will at once think of many trades, such as plumbing, where machinery cannot be substituted for hand labor, and where, consequently, the only elastic element in the demand for labor lies in the elasticity of the demand for the products of labor.

The Effect of Labor-saving Machinery on the Demand for Labor. — In what has just been said about the use of machinery as a substitute for labor, we have had in mind only the effect of changes of wages on the relative amounts of labor and of capital that would be used in any one branch of production. Quite another problem, and one of great social importance, relates to the way in which the demand for labor is affected by new inventions and by the introduction of new machine processes. The laborers themselves have often looked at such innovations with hostility. When machinery first began to be used extensively in the woolen industry in England, this opposition was expressed in riots in which the new machines were destroyed, as well as in "proposals to impose legislative restrictions on the use of machines, so as to bring them to a level with hand work, and prevent them from doing the work more quickly or more cheaply than it could be done by hand." [1] In many cases laborers still are inclined to view the introduction of labor-saving machinery as an economic injury to themselves. On the other hand, there are many persons who claim that this attitude on the part of the laborers is an evidence of shortsightedness, since the inevitable result of machine production is to cheapen the prices of products and thus to lower the cost of living, the net result being an increase in *real wages*, as contrasted with nominal or money wages.

This view emphasizes an important truth, and yet it misses the real point of the laborers' alleged grievance. It is true that while the first result of the introduction of improved methods of production is often to bring larger profits to those who introduce them (especially if the new methods are protected by patents), their benefits are ultimately diffused throughout society at large in the form of the fuller and better satisfaction of wants, and the laboring class, as members of society, share in these advantages. But while it is thus true that such improvements ultimately redound to the benefit of laborers as a class, it is equally true that hardship to many individual laborers is often an immediate result of the introduction of labor-saving machinery. Especially is this true in the case of skilled workmen in highly specialized employments, who sometimes find themselves suddenly deprived of the advantages of their skill, — gained often by long years of apprenticeship. To expect that such men will feel that they are compensated for their personal loss by the advantages ultimately accruing to laborers as a class, is to ask too much of the altruistic elements in human nature. Workmen have learned, however, from the experience of the past hundred years, that the introduction of machinery is inevitable, and in the better-organized trades they are in many cases pursuing the wiser course of trying to regulate the conditions of the introduction of new kinds of labor-saving machinery in such a way as to diminish the hardship inflicted on individual workingmen. Thus, when the linotype machine began to displace hand compositors in the printing trade, the typographical union was able to secure the retention of many hand compositors as linotype operators, together with a reduction in the length of the working day.

It should be noted also that the effect of the introduction of machinery upon the demand for labor varies in different industries, the most important factor in this connection being the elasticity of the demand for the products of the particular trade affected. In the case of the linotype just mentioned, the lessened cost of composition made it possible for newspapers to increase their reading matter greatly, so that the actual reduction in the number of employees was small compared with what might have been expected. The introduction of machine methods into the English texile industry during the period of the Industrial Revolution furnishes an instructive example. The change in the methods of manufacturing cotton cloth came just as the invention of the cotton gin had greatly increased and cheapened the supply of raw material. This, coupled with the decreased cost of manufacturing, so cheapened cotton cloth (which had previously been very expensive) that its use was largely increased. In fact, a great many more persons were employed in spinning and weaving cotton soon after the Industrial Revolution than immediately before it. In the woolen industry, however, there was no such immediate increase in the sale of the product, so that many workers were displaced, and had to seek occupations where their specialized skill was of no avail. Especially when the occupation affected is a highly specialized but relatively unimportant one in a series of processes comprised in the manufacture of a product the wage-earning power of the displaced laborers is apt to be seriously diminished.

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[1] Cunningham and McArthur, *English Industrial History*, p. 226.

The Supply of Labor. — It is when we fix our attention upon the
nature of the supply of labor that differences between the way
in which wages are determined and the way in which the prices
of commodities are determined become most noticeable. In the
first place, if we view industry in general, we notice that in the case
of labor there cannot be much difference between the actual supply
and what we called, when discussing exchange value, the "potential supply." Labor is in this particular like the most perish-
able of commodities: the number of working days in a man's
life is limited, and those that are not sold are irrevocably gone.
The laborer has, it is true, some power in the way of "holding
out for higher wages," but even this power is limited rather nar-
rowly by the absolute necessity of making a livelihood. In the 1.
long run small wages are better than none. The sale of labor is
most often a forced sale. In the second place, the fact that labor 2
is inseparable from the person of the laborer has important results.
When the laborer enters into an agreement to work for wages, he
not only sells his labor, but he gives up a certain amount of control
over his own life; he agrees to live and work under conditions —
often unpleasant ones — set for him by others; he accepts, in

short, all the environment of his task, as well as the task itself. Connected to some extent with this last fact is a third difference
3 — the relative immobility of labor. Commodities may always be sent to the market where they will command the best price, but the laborer is restrained by family ties, patriotism, differences in language, customs, and religion, ignorance, and the like. The result is that variations in wages as between different countries or as between different localities in the same country are much greater than similar variations in prices.

We are apt to take it for granted that the supply of labor in different countries and localities depends primarily on the numbers of the population. This is, of course, fundamentally true, but we must also note that the *structure* of the population is a variable thing, and one that affects the supply of labor. Over four fifths of the persons employed in gainful occupations ~~in~~ the United States in 1900 were males ~~— a fact~~ which suggests that the relative proportions of the sexes in the population have an important effect on the supply of labor. There are more males than females in the population of the United States, while the reverse is true of most European countries, this difference being due in large part to the excess of males among our European immigrants. There are important differences in this respect between the individual states. Males constitute nearly two thirds of the population of Montana and less than one half of the population of Massachusetts. The age composition of the population must also be taken into account. The United States census of 1900 showed that nine tenths of the persons engaged in gainful occupations were between 15 and 65 years of age — comprising what is sometimes called the "productive age group." A larger proportion of the population of the United States is between these ages than is the case in most European countries — a fact which is due to the large number of foreign-born adults in our population. In most European countries a larger proportion of the population is of "productive age" than is true for the native population of the United States. In considering the effect of these natural groupings of the population upon the supply of labor, we have to also take account of differences in the nature of industries, in national or local customs, and in the presence or absence of legal restrictions, — all of which affect the number of women and children who can be counted as part of the available supply of labor. Many observers have suggested that the frequent holidays found in the Latin countries of Europe form an appreciable obstacle in the way of the industrial development of those countries, as they materially diminish the real supply of labor.

The supply of labor is not, however, merely a matter of the number of available laborers; it is also conditioned by their efficiency. The physical strength and vigor, industry, intelligence, ingenuity, and moral qualities of the laboring population determine the amount and kinds of work they can do. These things vary greatly as between different races and as between different individuals of the same race. They are not entirely a matter of heredity, for they can be influenced greatly by the physical and social environment. So far as high wages mean more and better food, and improve the other conditions of living, they tend to increase physical and mental efficiency, and thus to increase the quantity and better the quality of labor that can be got from a given population. There may often be, even when we take only production into account, a real economy in high wages.[1] Public education and public activity in regard to such matters as pure foods, hygienic conditions in homes and in factories, and opportunities for wholesome recreation tend to increase the efficiency of labor, and might be justified on this ground. The right view, however, is that such things would be justified on their own account, as tending to raise the level of human living, even if they did not increase human efficiency.

The Relation of the Growth of the Population to the Supply of Labor. — Just as the potential supply of commodities at any given time is determined largely by past conditions, so the potential supply of labor at any given time is to a very large extent predetermined. Subject to the limitations which have been mentioned in the preceding section, the supply of labor is a matter of the numbers of the population, and the factors affecting the growth of the population are, from the long-time point of view, the most important things determining the supply of labor. Most of the discussion of these factors has centered around the Malthusian theory of population — the doctrine that population tends to increase faster than the food supply, and is only held back by the actual pressure of famine and disease (arising from an insufficient food supply), or by the prudential motives which restrain men from undertaking the responsibility of marrying and raising families upon incomes insufficient to provide the necessities of life. Just what the first part of this doctrine means can be made clear by referring to the conditions in a country like India, where the population presses so closely upon the food supply that any considerable failure in the rice crop is sure to result in famine and starvation. Every increase in the food supply is followed there by an increase in the birth rate and a decrease in the death rate; every diminution in the food supply is followed by a decrease in the birth rate and an increase in the death rate. The frequent famines in India, which have been charged by some ignorant or prejudiced observers to neglect or incompetence on the part of the British government, are, in fact, absolutely unpreventable, so long as these conditions prevail. When, however, we fix our attention upon the United States, or England, or any country possessing Western civilization, we notice some things that do not seem to harmonize with the Malthusian theory. The population does not press so closely upon the food supply that any widespread suffering follows a season of poor crops. Poverty seems to have but little restrictive effect on the birth rate, which is generally higher among the poorer classes than among the well-to-do. Such facts have been cited by critics of the Malthusian theory, some of whom have been inclined to credit it with very little economic significance. Yet when we take a broader view of the facts, they appear in quite a different light.

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[1] It sometimes happens that a sudden decrease in wages acts as a spur or stimulus, and thus increases, *temporarily*, the productive efficiency of labor. This fact, which has been noted by many employers, does not affect the significance of the relation between high wages and efficiency, when a longer period of time is taken into account.

The best estimates indicate that England did not have over five and a half million inhabitants in 1630, and yet overcrowding at home was one of the reasons commonly given for the policy of colonization which England was undertaking at that time. A 1130 hundred years later, despite the growth of industry, and of foreign and domestic trade, as well as some important improvements in agricultural methods, the population had increased to only about 6,200,000. In 1761, on the eve of the Industrial Revolution, the population is estimated to have been about 6,700,000.[1] By 1831, when the factory system was thoroughly established (although England was still trying to raise most of her own food supply), the population had more than doubled, amounting to about 14,000,000. Since that time England has developed her manufacturing and commercial interests, but has imported a larger and larger proportion of her food supply and raw materials from newer countries, where land is cheaper. The latest census of England (1901) showed a population of 32,500,000. There is no explanation of this remarkable growth in the population of a country which was "overcrowded" in 1630, other than the obvious one contained in the fact that the opening up of new countries and the improvements in transportation have enormously increased the world's supply of food products and raw materials — a considerable portion of which England has been able to get for herself through the development of those commercial and manufacturing activities in which her early start, her situation, her coal and iron mines, and her own necessities, have given her a preëminence.

The total population of all Europe in 1760 was probably not over 130,000,000. In 1905 it was about 405,000,000, some 200,000,000 of this increase having taken place since 1820, and about 100,000,000 since 1872. Account must also be taken of about 100,000,000 persons of European origin or descent living outside of Europe at the beginning of the twentieth century. Moreover, wherever this European expansion has carried Western civilization and industrial methods, the numbers of the native population have more often increased than decreased.[2] Such, for example, is the case in Mexico, South America, the Philippines, Java, India, and Egypt. For at least a hundred and fifty years before the opening of Japan to Western civilization its population had remained nearly stationary. Since 1871 it has increased from 33,000,000 to approximately 50,000,000 (1908). The probability that this great increase in that part of the world's population which has adopted modern industrial methods has come about by a decrease in the death rate rather than by an increase in the birth rate does not alter the significance of the fact that these improved methods of production and transportation have operated like the release of a spring,[1] allowing the natural tendency toward the increase of the population to work itself out more fully.

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[1] For these estimates, see Census of Great Britain, 1850, Vol. II.

[2] W. F. Willcox, "The Expansion of Europe in its Influence upon Population," in *Studies in Philosophy and Psychology*, by former students of C. E. Garman.

In view of these facts it is impossible to deny a large amount of significance to the Malthusian theory of population. Population has generally increased wherever the increase in wealth has afforded it opportunity. Yet it does not follow that the Malthusian theory is, in its strictest interpretation, true. Population has not increased as *rapidly* as wealth has increased. Average real incomes are very much higher than they were before the Industrial Revolution — a statement that holds true for average real wages as a particular form of income. Interpreted in the light of the theory of diminishing productivity, this means that population has not increased so rapidly as capital and the available supply of land have increased. If there had been no increase in population during the last one hundred and fifty years, the marginal productivity of labor would (if, nevertheless, modern methods of production had been developed) have been very much higher than it is, and wages would have been correspondingly higher than they are.

The Subsistence Theory of Wages. — The doctrine that wages tend, in the long run, to equal a bare subsistence, was a theory advanced by English economists in the first quarter of the nineteenth century as a corollary of the Malthusian law of population. Said Ricardo: "The natural price of labor is that price which is necessary to enable the laborers, one with another, to subsist and to perpetuate their race, without either increase or diminution." Granting the premises, the logic was incontrovertible: If wages fall below this level of subsistence, the result will be, in the long run, fewer laborers and therefore higher wages. If the increase in wages goes beyond the level fixed by the cost of subsistence, the result will be, according to the Malthusian doctrine, more laborers and therefore higher wages. The cost of subsistence in this view formed the "expenses of production" of labor, and the actual wages determined by supply and demand were supposed to fluctuate around these normal wages as the market values of commodities fluctuate around the normal values fixed by the expenses of production. Socialists and advocates of the single tax have made much of this theory of wages as proving the impossibility of bettering the condition of the laboring class under existing conditions. By some socialists this doctrine, in its most rigid form, has been called the "iron law of wages." But socialists and followers of Henry George alike have to face the difficulty of accepting this theory and at the same time rejecting the theory of population on which it rests — a theory which they cannot accept, for its truth would obviously place insuperable obstacles in the way of any lasting improvement in wages being achieved through the adoption of their schemes. The subsistence theory of wages, if true, would hold just as true under socialism or under the national ownership of land as under existing conditions.

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[1] This figure was applied to the effect of an increase in wealth upon the growth of the population by Sir James Steuart, in his treatise on Political Economy (1767).

It should be said that the subsistence theory of wages was in part a reflex of the conditions actually existing in England at the time. Wages were very low, and the law required that deficiencies in wages, below the amount necessary for the maintenance of the laborer and his family, should be made up out of parish funds — a provision which in itself tended to keep down wages, and was made still worse by the fact that the allowance for maintenance to each family was proportioned to the size of the family, thus encouraging the rapid increase of the population.

The Relation of the Standard of Life to the Supply of Labor. — Whatever may have been the case in the past, the subsistence theory of wages does not square with the facts of to-day, for the amount paid in wages is obviously considerably more than is "necessary to enable the laborers to subsist and to perpetuate their race, without either increase or diminution." Ricardo himself did not give to the "minimum of subsistence" the fixed and rigid meaning which some socialists have attached to it. It varied, he recognized, with the habits and customs of the people. In this more elastic form the "minimum of subsistence" shades into what is termed more accurately the "standard of life." *The number and character of the wants which a man considers more important than marriage and family constitute his standard of life.* Whenever wages fall below a point where the standard of life can be maintained for a family, the workman will do without the family and maintain the standard of life for himself alone. While the increase in the quantity of goods produced that has taken place by reason of the industrial revolution and the utilization of new and vast bodies of natural resources has been attended with an unprecedented increase in population, it has also been attended with an improvement in the standard of living. Every advance in the standard of life marks a step definitely gained in the economic progress of the laboring class; it affords a vantage ground for yet farther progress.

This is not only because the standard of life is, by very definition, a fundamental factor in determining, in the long run, the supply of labor, but also because experience has shown that the standard of life affords an element of strength to laborers in their bargains with employers. Any encroachments on it are met with strong and determined resistance. Moreover, a high standard of life is, as we have seen, one of the things that make for productive efficiency on the part of the laborer, and hence tend to increase his earning capacity. Many persons who are deeply interested in the welfare of the laboring class believe that the wisest philanthropy is embodied in the efforts that are made to raise the level of living. Among such efforts are included such things as the work of social settlements, public and private movements to secure better conditions of housing, municipal expenditures for places of public recreation, for public libraries, for such things even as clean and well-lighted streets; and, above all, public education.

The extent to which the possibility of attaining a still higher standard of living operates as a restraining force upon the increase of the population is largely determined by the extent to which democratic ideals are realized in the social organization. It is a noticeable fact, for example, that the first generation of immigrants to the United States bring with them the habits and ways of living of their European homes. So long as simple standards of life are retained in connection with the larger incomes which they are able to earn in this country, more of them are able to marry; they are able to marry earlier, and they can raise larger families. But the second generation grows up in an American environment. They attend our public schools, where they mingle with American children and receive an American education. The possibility of taking a social and economic position higher than that of their parents is opened up to them. They become saturated with the American notion that each man has a chance to climb to the top of the ladder. They find here no rigid barriers separating social classes from one another. "Like father, like son" may have been true in Europe; here it has no binding force. Hence the birth rate among our native population of foreign parentage is very much lower than the birth rate among our foreign-born population.

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The Supply of Labor in Different Occupations. — Just as the demand for labor on the part of entrepreneurs is not a demand for "labor in general," but a demand for specific kinds of labor, so the supply of labor is the supply of laborers who are able and willing to do certain definite kinds of work. The supply of labor in any given occupation is, at any given time, almost as rigidly fixed as is the supply of labor in general. Laborers can usually change from one occupation to another only at the loss of the advantage of whatever specialized skill they may have acquired. This is, however, a matter of *occupation*, not of *industries*. There is, for example, a wide range of industries open to a skilled mechanic or a stationary engineer. In the skilled trades what variability there is in the supply (at any given time) comes less from any possibility of passing from one trade to another than from the opportunities the more efficient and ambitious workmen have of entering business on their own account (that is, of becoming entrepreneurs) or of entering some calling where ability, rather than specialized skill, is the prime requisite. The carpenter may become a contractor; the skilled mechanic may become a traveling salesman, and this, very likely, in some line where his specialized skill will still be of some advantage. The options thus open to the stronger members of each group should not be lost sight of in any consideration of the forces tending to resist a downward movement in the wages paid in any occupation.

Throughout the greater part of American history the most important option of this kind has been due to the existence of a large body of free land. The mobility of labor in this country has been such that it has been impossible for wages to fall much below the amount which a man could make for himself by taking up government land on the frontier. To-day, however, we are confronted by a different set of conditions. The frontier has completed its journey across the continent, and there remains for the settler only such land as irrigation may reclaim from the arid regions of the West. The wage earner will henceforth be without the strong support of the economic alternative of a living got from free land.

When we take the long-period point of view, we find more elasticity in the supply of labor in particular occupations. The ranks of each trade are being continually depleted by old age, death, and, to some extent, by the alternatives open to its stronger members. These gaps need not be filled by an incoming body of apprentices if the wages paid are lower than the wages in other occupations demanding a similar degree of preparation and ability. But there is a certain amount of inelasticity even here, for a variety of reasons, among which we may note: the habit of imitation, which leads a boy to enter the same occupation his acquaintances have chosen; the not infrequent tendency of sons to enter their father's occupation; lack of knowledge or of early appreciation of the relative advantages of different employments, and the fact that only a small number of options may be open to the residents of a particular territory. These facts, in turn, have an important bearing upon the localization of industry, for industries are apt to be located in places where there is a present and prospective supply of specially skilled labor.

Differences in wages, together with other factors just mentioned, are not, however, the only considerations which attract laborers to different occupations. Many economic writers have observed that there are differences in the wages paid in different employments which are out of all proportion to any differences in the training or the ability they require. Adam Smith enumerated five circumstances which " make up for a small pecuniary gain in some employments, and counterbalance a great one in others." These are: "I. The agreeableness or disagreeableness of the employments themselves; II. The easiness and cheapness, or the difficulty and expense, of learning them; III. The constancy or inconstancy of employment in them; IV. The small or great trust which must be reposed in those who exercise them; and V. The probability or improbability of success in them." These circumstances need explanation in two particulars: First, the agreeableness or disagreeableness of an employment is very often a matter of the social standing attached to it. Many men are doing clerical work to whom some kind of physical exertion would be both more pleasant and more profitable, but who dislike to be classed among the "manual laborers." So-called "professional pursuits" attract many men to whom more lucrative opportunities, requiring less special preparation, are open in other employments. In the second place, the significance of these circumstances is affected by the fact that the most poorly paid (because the least efficient) laborers are found in the most disagreeable and the most uncertain employments.

The Wage Contract. — The wages that a laborer actually receives are determined by an agreement between himself and his employer. Here appear again those "gains of bargaining" which were mentioned in the discussion of the prices of commodities. But in the case of the wage agreement, if the bargain is between an employer and an individual workman, the advantage is apt to be all on one side. The employer is apt to know pretty accurately what he can afford to pay the laborer; he knows about how much the laborer will add to his product, and his knowledge of business conditions helps him to estimate the value of this added product. He knows what it would cost him to get his added product in other ways, as by paying some of his present employees for "overtime" work, or possibly by speeding his machinery faster. Moreover, there is the possibility, or even probability, of getting some other laborer, in case he fails to come to an agreement with the one in question. His experience as an employer of laborers will help him to gage the minimum that the laborer will accept. With the laborer the situation is very different. He can gage with less accuracy just how much his services are worth to the employer. The minimum wage that he will accept will be governed by his very limited power of holding out for higher wages, or by his estimate of what he can get in other employments — very few of which may be open to him. The whole situation may be expressed by the statement that it is usually a matter of small importance to the employer whether or not he secures a particular laborer, while the securing of a particular employment is often a matter of the very greatest importance to the laborer. Under these conditions wages are apt to be fixed much closer to the minimum which the laborer will take than to the maximum which the employer will pay. Where laborers can bargain in groups rather than as individuals, their disadvantages are greatly lessened. The fundamental motive underlying the organization of labor unions has been to secure the advantages of *collective bargaining*.

Wages and Efficiency. — That wages vary with the efficiency of individual laborers is a fact of common observation. Wages are paid for the products of individual laborers (or, under collective bargaining, for the products of *groups* of laborers), and the amount of a laborer's product obviously depends very largely upon his efficiency. Some writers have even gone so far as to speak of "no-rent" laborers, — the least efficient ones, — and to press the analogy between the differential gain which the more efficient laborers get and the rent of land. This procedure is, however, more confusing than useful in the explanation of wages. So far as the distribution of laborers according to their efficiency is concerned, there seems to be a common impression to the effect that it is of a kind that could be represented graphically by a pyramid, the least efficient and relatively most numerous classes forming the base of the pyramid, and the numbers growing constantly smaller and smaller as the scale of efficiency ascends. Now unless we beg the whole question of the relation of wages to efficiency by assuming that efficiency is measured by the ability to get high wages, we will find it very difficult to get a definite statistical test of the distribution of efficiency among men. For when we speak of efficiency, we usually mean either efficiency for a particular purpose, or a combination of physical, mental, and moral qualities, — "general sagacity and energy," as Professor Marshall has put it. There is, however, one ascertained fact of great significance, and that is that the distribution of such physical and mental characteristics of men as have been measured and tabulated in statistical form seem to conform more or less closely to what is known as the "normal law of error,"[1] or the "normal frequency curve."

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[1] So named because it expresses the accuracy of such things as a large number of shots at a target, or a large number of astronomical observations on the position of a fixed star.

Assume, for illustration, that we are dealing with the measurements of the stature of a large number of men. Let all the different degrees of stature be represented by successive points on the line AA_2, (Fig. 1), so

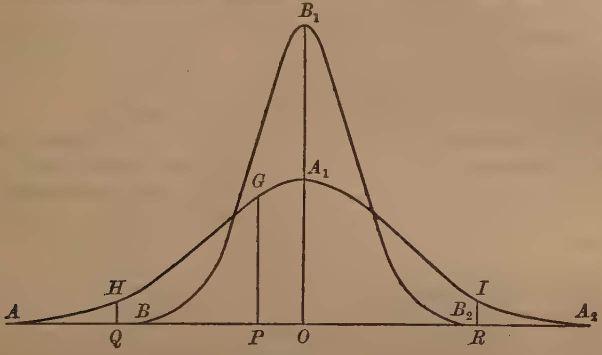

FIG. 1

that the least height will be at A and the greatest at A_2. Then let vertical distances measured upward from these points represent the relative number of men found to be of each of these different degrees of stature. Thus the relative number of men of height P is represented by the length of the line PG, while the line QH represents the relative number of men of stature Q. The curve AA_1A_2, which connects the tops of all these imaginary vertical lines, represents the distribution according to stature of all the men measured. Two important characteristics of this curve will be noted: first, the most commonly found stature is the medium or average stature, while extremely tall or extremely short men are the least frequent; second, the curve is symmetrical; that is, as many men are found to be 20 per cent shorter than the average as are found to be 20 per cent taller than the average. The curve BB_1B_2 is precisely the same sort of curve, and it represents the measurements of just as many men (for its area is the same as that of the curve AA_1A_2), but it is constructed on the assumption that stature is only half as variable as is assumed in the curve AA_1A_2. This assumption would mean that men were, with respect to stature, concentrated more closely around the average than is indicated by the first curve. Not only with respect to physical measurements of various kinds (such as of cranial capacity, or of the ratio of length of the head to its breadth), but also with respect to measurements of many specific kinds of mental efficiency[1] men are found to be distributed with "normal frequency." It follows that the most probable kind of distribution of men with respect to the complex of physical, mental, and moral qualities, included under the general term "efficiency," is something closely approximating this normal type. If the curve AA_1A_2

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[1] *Cf.* E. L. Thorndike, *Mental and Social Measurements*, especially page 59.

represents the distribution of men according to their efficiency, we may assume that those represented by the part of the area to the left of a certain line (*HQ*, for example) are those who are below the level of social utilization, including the physically and mentally defective and the morally delinquent classes. Similarly, those represented by the area to the right of the line *IR* would include the most efficient members of the population, the individuals of exceptional ability. When one speaks of "commonplace mediocrity" he has in mind its relatively greater frequency.

Figure 2 is based upon a table which shows the weekly wages received in 1900 by 160,000 employees in 30 industries, including textile mills, wood working, metal working, and miscellaneous industries.[1] In this diagram the horizontal line represents the various weekly wages received (greater than two dollars and less than fifty dollars a week) classified in two-dollar groups. The vertical distances represent in each case the proportion of the total number of employees who received the wage specified. Thus the diagram shows that over 23 per cent of the employees were paid between eight and ten dollars a week, and that over 5 per cent received between eighteen and twenty dollars per week. If wages varied exactly according to efficiency, we would expect that this diagram would follow the general pattern of the normal frequency curve shown in Figure 1. There are, however, some noticeable differences. The median wage (the wage which divides the whole number of employees into two halves, one half receiving more and one half receiving less than the median wage), which is in this case about $10.50, was not located at the point of greatest frequency,

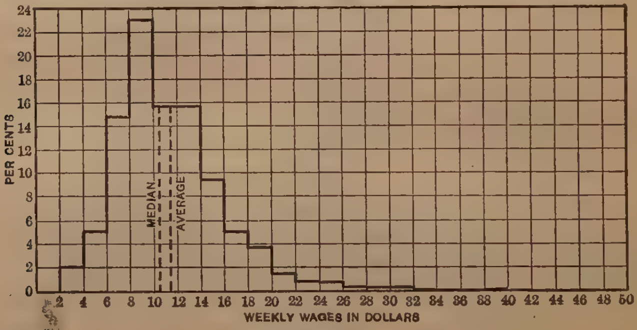

FIG. 2

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[1] The statistics were gathered by the United States Census Office and printed in the special report of the Twelfth Census on Employees and Wages. The tabulation on which the diagram is based is taken from an article on "The Variability of Wages," by Professor H. L. Moore, in the *Political Science Quarterly*, Vol. XXII, p. 67. See also an article by Professor Moore on "The Efficiency Theory of Wages," *Economic Journal*, Vol. XVII, p. 571.

as is true of the normal frequency curve, but somewhat above it. The average wages (the quotient obtained by dividing the total amount paid in wages by the number of employees) was still higher, amounting to about $11.50. The diagram is not symmetrical, but shows a concentration of employees in the lower wage groups, and a relatively greater variation or "dispersion" in the case of those receiving higher wages. This suggests that either differences in wages are not so great in the lower wage groups as differences in efficiency, or that differences in wages in the higher wage groups are greater than differences in efficiency. In general, differences in wages seem to increase more rapidly than differences in efficiency as the scale of efficiency ascends. If wages are paid for the productivity of the individual workman, and if productivity varies with efficiency, what is the explanation of this difference between the distribution of efficiency and the distribution of wages?

First, it should be noted that the normal frequency curve only applies to so-called "natural" efficiency, made up of inherited qualities. Actual productive efficiency is a product not only of natural efficiency, but also of *training*, and this acquired element of specialized skill is more important in the case of the better workmen than in the case of the less efficient. In the second place, higher-paid workmen are in better-organized trades, and gain more than do the others from the advantages of collective bargaining. In the third place, when we speak of the productivity of a laborer as a fundamental thing determining his wages, we have in mind the amount of product imputed to the laborer — the amount by which the total product would be decreased if his labor were not utilized. This amount depends not only upon the efficiency, natural and acquired, of the laborer, but also (on account of the law of diminishing productivity) upon the extent to which the employer finds it profitable to utilize labor rather than capital or land. This, on account of the fact that the sale of labor is analogous to a "forced sale," is apt to be determined largely by the supply of labor in each employment. So far as the supply of labor in the better-paid trades is restricted through the limitation of apprenticeship, or through other means, the marginal productivity of labor in other employments is (since the restriction of the supply of labor in any one employment necessitates a corresponding increase of the supply in some other employments) relatively decreased. These three considerations account, at least partially, for the difference between the distribution of wages and the probable distribution of natural efficiency.

QUESTIONS AND EXERCISES

1. How far are wages determined by the productivity of labor? In what different ways do wages affect the productivity of labor? What meaning, or meanings, do you attach to the word "productivity" in the foregoing questions?

2. Why are the wages of men higher than the wages of women in the same employments?

3. Make a short outline, or table, of the factors determining the supply and demand of labor.

4. Are wages paid as a reward for the irksomeness of labor? Are they paid on account of the scarcity of labor?

5. Some economists have held that "a demand for commodities is not a demand for labor." Discuss this statement.

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CHAPTER XXIII

LABOR PROBLEMS

Whatever may be the economic law in accordance with which wages are fixed, it must be vitalized or expressed by the conscious efforts of human agents. For instance, it is frequently said that the price of labor is determined by the law of demand and supply. This may be true, but the law of demand and supply is animated by no mystical or occult force; it must be enforced by active, intelligent men, keen enough to know their own interest, and bent upon pursuing it. Men must take advantage of the economic forces working to their advantage, or they will lose their advantage.

Types of Labor Organizations. — One of the most important agents now occupied in giving effect to the economic laws which control wages is the labor organization. There are at least three distinct types of labor organizations: the *Trade Union*, representing a combination of wage earners in a single trade or two or three closely related trades; the *Industrial Union*, composed of all kinds of wage earners working in a given industry; and the mixed *Labor Union*, made up of wage earners from many trades and many industries. Thus, the Brotherhood of Locomotive Engineers, a strict trades union, makes no attempt to include other workers in the railway service; the United Mine Workers, however, an industrial union, attempts to combine all persons working in and around the mines; while the Knights of Labor, in the period of its strength and prosperity, fused all sorts and conditions of workers in some of its district assemblies, and combined these assemblies in a closely knit, highly centralized national organization.

The difference in the structure of labor organizations colors their policies and gives rise to important problems. The trade and industrial unions are, as we should expect, much more homogeneous and therefore much more efficient than the labor unions, but they are likely to be narrower in their aims and more selfish in their policies. The labor unions, on the other hand, have in the past proved much less efficient, much more unwieldy, and much more disposed to make use of coöperation, political action, and other devices which are not suited to associations of wage earners, or at least not easily handled by them.

The most important problem growing out of the structure of labor organizations is known as the *jurisdiction* dispute. Thus the Knights of Labor, having received into their membership a large number of cigar makers, fell into a sharp dispute with the regular International Cigar Makers' Union, whose cause was naturally espoused by the American Federation of Labor. In more recent years bitter quarrels have taken place between the trade and industrial unions. The United Brewery Workers, for instance, an industrial union, has been quarreling for years with the trade organizations among the painters, the coopers, and the stationary firemen. The American Federation of Labor, to which most of these organizations belong, has usually favored the trades unions in these disputes, and has recently ordered all coopers, painters, and teamsters in the Brewery Workers' Union to join the trades unions in their respective crafts.

For the larger and more general objects common to wage workers as a body, many of the American unions have combined in a large, loosely knit confederacy, known as the American Federation of Labor. This organization interferes just as little as possible with the constituent unions, and confines its activity to securing favorable labor laws, organizing trades in districts of the country in which trades unions have heretofore failed to get a start, rendering assistance to unions which are hard pushed in strikes or other disputes with employers, encouraging the use of union-label goods, and, in short, to furthering all those interests which labor organizations have in common. In recent years the American Federation of Labor has grown with extraordinary rapidity. The present (1908) membership is about 2,000,000.

The Economic Justification of Labor Organizations. — The question is often asked why labor organizations are necessary, in view of the fact that wages are fixed, at least within broad limits, by deep-lying economic and social forces which the labor organization cannot effectively control. If wages depend upon demand and supply, it is said, what excuse for the troublesome and irritating trades union?

The answer has been partially stated above. Economic laws work themselves out through men and through organizations — they are not self-enforcing. We have had labor organizations of one kind and another ever since the wage system existed, and we shall unquestionably continue to have such organizations until the wage system is superseded by something more satisfactory.

There are, however, additional reasons for the existence of the labor organization. Wages, we say, are measured by the marginal productivity of labor. This productivity, in turn, is partially dependent upon the demand and supply of labor. But the supply of labor is largely controlled, as we have seen, by the standard of life; and one of the great functions of the labor organizations is to strengthen and advance the standard of life. If a great horde of unorganized and unsympathetic wage earners are continually bidding against one another in the labor market, each individual endeavoring to get a little more work by offering to take a little less pay, the standard of living will be subtly undermined, "nibbled away," as a well-known writer has expressed it. The labor organization, by repressing the vicious activity of this competition, by compelling its members to offer the same terms and abide by common or standard rules, bulwarks the standard of life, and gives it increased precision, increased power and durability. In addition, most unions endeavor to exercise a more direct and positive influence upon the supply of labor, by limiting the number of apprentices, helpers, and other persons entering the trade. These efforts, however, are not always successful.

Current economic doctrine recognizes at least one other legitimate function of the labor organization. In actual life there is always a margin between the actual productivity of the wage earner and the amount which he receives as wages. The employer cannot pay the worker all the latter makes; if he did, he would have no profits. By stout resistance and skillful bargaining it is possible for the wage worker to get a part of that share of the product which in the past has gone to the employer as profits. Of course, that labor organization will be most successful in the long run which increases the productivity of its members, and thus creates a larger product to be distributed among all the factors of production. But even if the organization does not increase the productivity of its members, it has a chance to improve their wages by trenching upon profits. Mere bargaining, therefore, despite the operation of more fundamental economic forces, is still exceedingly important. And the unorganized wage worker, being a poor bargainer, combines with his fellow-workmen, not only to maintain a more uniform price for their labor, but in order to procure the guidance and assistance of an expert bargainer — the business agent or walking delegate. The labor organization is thus a commerical institution for the sale of labor in large quantities; its primary function is collective bargaining.

Labor Organizations and Monopoly. — It is plain that the labor organization as a wholesale jobber of labor is essentially a product of those familiar economic forces making for large-scale commercial dealings; it is brother to the trust, akin to the combination, and thus not untainted with monopoly. One of the most searching criticisms directed against the labor organization is that it exhibits all the evil tendencies of monopoly. The charge has some elements of truth. The highest aim of the average labor organization is to induce every worker in the industry to join the union, so that by monopolizing the supply of labor it may control the price. But in its principal implications the charge of monopoly is misleading, because the great majority of unions do not attempt to limit the number of their beneficiaries. They aim to increase wages, but they are willing and even anxious that every member of the craft should share the increase. It is rare for a labor organization to exclude from its ranks a number of workers and then persecute them by refusing to work with them or treating them as scabs. Conflicts with non-union men are common, but in a very large majority of cases every effort has been made to get these men into the union. An organization which is constantly exhorting its competitors to come into the combination and share its benefits cannot logically be called a monopoly.

Methods and Policies of Labor Organizations. — The aims of labor organizations and the policies employed to achieve their ends vary in accordance with the conditions of the occupation or industry in which their members work. Some unions, for instance, lay great emphasis upon apprenticeship; and if they thus secure control of the supply of labor in the trade, find it necessary to place but little dependence upon strikes and boycotts. On the other hand, organizations like the Brotherhood of Locomotive Engineers find this question settled for them; no one can perform the work of a locomotive engineer without preliminary training, and this natural limitation of the number of trained locomotive engineers makes it possible for their union to get along without maintaining either apprenticeship regulations or the policy of the closed shop. And for years it has not indulged in a strike. An admirable system of mutual insurance and simple collective bargaining are sufficient to keep the membership loyal and obtain from employers fair rates of pay.

In the unskilled trades, on the other hand, where a period of apprenticeship is wholly superfluous, some more artificial protection of the standard of life must be employed, like the "policy of the closed shop";[1] and this naturally forces the union, in turn, to place great dependence upon the strike and boycott. Before condemning a union for employing some of these policies, therefore, or contrasting it unfavorably with highly conservative unions, like the Railway Brotherhoods, it is necessary to inquire whether or not, like the Railway Brotherhoods, it is protected by some natural condition of the business, which makes peaceable collective bargaining comparatively easy.

It is impossible to pass any general verdict upon the justice of the closed-shop policy. Most Americans are inclined to condemn it offhand as an attempt to deprive the non-union man of his "sacred right to work." They forget that the union man enforces the closed-shop policy by an exercise of his "sacred right of quitting work." Except where violence is employed, the union which is attempting to enforce a closed-shop policy threatens to do nothing worse than direct its members to quit the employment of the proprietor of the open shop in question. Two equally "sacred and inalienable rights" clash in this contest, and it is plain that no decision concerning the legitimacy of the closed-shop policy can be determined by reference to a philosophy of rights. If we would know whether a strike against non-union men is justifiable or unjustifiable, we must inquire into all the surrounding circumstances and the manner in which the strike is conducted. If the strike is conducted peaceably, and if the union in question is an open union, cordially inviting the "scabs" to enter and share its benefits; if the rate of wages and other conditions of employment demanded by the union men are reasonable in view of the cost of living and other similar conditions; if the "scabs" involved, by accepting less than a living wage or other harmful conditions of employment, are working — even though of necessity — to undermine the American standard of living; then we have no hesitation in saying that the employment of the closed-shop policy on the part of the union is thoroughly justifiable.

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[1] The familiar union rule prohibiting members of the union from working with non-union men. The policy is very elastic. No objection is made to working with members of an occupation not yet organized; some unions apply the ban only to non-union men in the same trade or craft; while others practically refuse to work for an employer who hires any non-union men at all (not applying the term "non-union men" to laborers, porters, and other unorganized workers).

We are much too prone in a case like this to see only the injury done to the non-union man, forgetful of the fact that the non-union man does a real injury to his fellow-workers by accepting wages or other conditions of employment that are inconsistent with the American mode of living. The price cutter in the labor market is not ordinarily a social benefactor. / The weakest, dullest, and least enterprising laborer exerts an influence upon the general level of wages out of all proportion to his importance or his deserts. If this be true, the man who cuts the standard rate of wages may do a grave social injury, and there is justification for those who peaceably combine to prevent him from doing his destructive work. It must be remembered, however, that these conclusions are based upon the assumption that the union is an open union and that the strike is conducted without intimidation or interference with the non-union men. The moment the union stoops to violence, that moment it loses all claim to the support of an enlightened public opinion.

Another policy which is generally, and in many cases unjustly, condemned is the regulation of output, systematically practiced and indorsed by most unions. The output of the worker is limited in many ways. The reduction of the hours of labor, the limitation of wages which some unions working by the piece system enforce, the prohibition or penalization of overtime, all operate to check the activity or reduce the output of the particular workman. Here, again, it is unsafe to render any general verdict upon the legitimacy of the policy in question. In some industries in which the piece system is employed, the rate per piece has unquestionably been forced down and the workers spurred to excessive exertion by the pressure and influence of pace makers or task masters, paid by the employers to urge the workers to the utmost speed. Where such conditions prevail, no one can successfully question the justice of the feeling which leads the union to object to the presence of pace makers and to prescribe a maximum wage — usually above that secured by the average workman — which union members are not permitted to exceed. In general, it is plain that an individual laborer may underbid a competitor by working more intensely, as well as by offering to work longer hours or at lower pay. On this account alone, trades unions are justified in defining and maintaining some regular pace or standard intensity of work. Without such definition, collective bargaining would be impossible. This last observation, it will be noted, applies only to trades working by the day. But even where the piece system is used, the workers may be justified in fixing a liberal limit to the amount of piecework which the wage earner shall be permitted to do in a day. For there can be no question that unregulated piecework does stimulate the worker to excessive exertion, and that as daily earnings under the piece system tend to rise, the employer is tempted to reduce the rates.

Some methods of restriction, however, are wholly vicious. The Journeyman Stone Cutters' Union, for instance, stoutly resisted for years the application of machinery to their work, and actually attempted to prevent the shipment of machine-planed stone into any city where the union has succeeded in preventing the introduction of planers. Such an attitude toward the introduction of labor-saving devices deserves the severest condemnation. Moreover, in some unions there is a tacit approval of the "go-easy" system, the system of "soldiering," or "adulterating labor," as it has been aptly termed. Such a method of restricting output not only corrupts the character of the individual workman who practices it, but makes it impossible for the employer to deal with the union as a seller of honest goods, and in this way tends to undermine the whole foundation of trades unionism, which is, as has been said, collective bargaining. On the other hand, there is no particular reason to believe that union labor is especially open to the charge of encouraging "go-easy" habits of work. The habit of stealthy loafing is found at its worst in certain occupations in which labor organizations are unknown, so that when it appears among union workmen it cannot logically be attributed to organization alone.

Educational and Fraternal Activities. — Practically all unions have important educational and social activities. Debate upon economic topics is common in union meetings, particularly at the conventions of the state and national organizations. It has even been said that foreign-born wage earners receive their most helpful and vital education in American public questions through the agency of the union. This broad education, which is a most important factor in elevating the standard of life, is supplemented by the social activities of the labor organization. Many unions maintain a so-called "Ladies' Auxiliary," in which the wives of the members participate; give concerts, dances, and other social entertainments, maintain charitable activities, and by general social intercourse operate to unify and solidify the standard of life of the wage-earning group concerned.

Closely allied with these educational and social features is the system of insurance benefits, which has played such a prominent part in the development of labor organizations. In Great Britain fully three times as much money is expended by the unions upon mutual insurance of various kinds as upon administrative activities, or for the support and encouragement of strikes. In the year 1901, for instance, eighty-nine of the one hundred most prominent British unions paid funeral benefits, eighty-three strike benefits, seventy-seven unemployed benefits, seventy-seven sick or accident benefits, and thirty-eight superannuation benefits. Union insurance is exceedingly helpful, not only in stimulating thrift among the individual members, but in making the union more careful and conservative in its policies. Moreover, it serves to keep in the union a large number of members, who, if they had no financial stake in continued membership, would drop out of the union in times of peace, when no apparent advantage was to be derived from the union. All things considered, the Cigars Makers' International Union has many claims to be considered the most successful American labor organization; and its success is in large degree, if not in the largest degree, attributable to its wise and extensive use of mutual insurance. But on the whole, the American unions make relatively little use of the insurance benefit. Most of them pay strike benefits, — that is part of their fighting policy, — and perhaps a majority of them pay funeral benefits, while a respectable majority pay sick benefits. But the employment of the superannuation, accident, traveling, or "out-of-work" benefit is comparatively rare. The great majority of American unions are militant in character, existing primarily for the purpose of collective bargaining, and placing the greatest reliance upon the policy of the closed shop and the strike.

The Strike. — Probably the most important weapon of the trades union is the strike. Unfortunately, also, the weapon is far too frequently used. Several generations ago most trades unions, while they vehemently defended their right to strike, cordially indorsed arbitration and apparently looked upon the strike as a weapon of last resort. To-day, the average trades union is at best only a lukewarm advocate of arbitration, while it has come to regard striking as a permanent policy. The net result has been to commercialize the strike, as it were. Instead of being a more or less spontaneous outburst against conditions which the workingman regarded as unrighteous and oppressive, the strike has come to be a commonplace method of bettering conditions of employment;

a device to be employed when conditions are favorable, to be laid aside when conditions are unfavorable, but to be used without regard to ethical consideration when its use appears to be profitable. As a result in this change in policy, strikes appear to be increasing steadily in the United States, as may be seen in the statistics quoted on the following pages.

While these statistics fluctuate in a very irregular way, there can be no doubt that they show a decided increase in the number of strikes, strikers, and employees thrown out of work by strikes. Moreover, comparison of the number of employees thrown out of work with the general wage-earning population indicates, although not so certainly, that the proportion of workingmen annually involved in strikes has been slowly increasing in the twenty-five years covered by the table. Precisely what is responsible for this increase in strikes is difficult to determine. The change in the attitude of labor organizations toward the strike is an important factor, no doubt. But the greatest reason for the increase, in all probability, is the rapid growth of organized labor. New unions are prone to strike. The sudden realization of their new power, and the accumulation of strike funds, tempt them to try their wings. In the long run organization probably exerts a conservative and steadying influence: national machinery is created which curbs the capricious impulses of the local unions; experienced men are usually elected to the more important national offices, and when they are called in to settle a local grievance, they arrive upon the scene of action without personal resentment against the employers involved. These facts create a strong hope, and, indeed, a confident belief, among many of those who have studied the labor question, that when practically all American trades are organized, strikes will steadily decrease as they have in England, where a much larger part of the wage-earning population is organized than in this country.

Labor leaders maintain that strikes strengthen the solidarity of the unions, and encourage the members to make personal sacrifices for the common good, while they force employers to respect the strength of organized labor, and are not, in the long run, particularly costly. The time lost in strikes, they say, merely takes the place of enforced vacations, seasonal stoppages, and other kinds of unemployment with which the average wage earner is normally visited during the course of the year's work. No amount of such dialectic, however, can argue out of existence the injury and destruction resulting from strikes. Many strikes are gravely injurious to the wage earners themselves; and almost all strikes injure employers and the consuming public. From the social

STRIKES IN THE UNITED STATES: 1881–1905

(From the Twenty-first Annual Report of the Commissioner of Labor)

Year	Strikes	Establishments	Strikers	Employees thrown out of Work	Average Days Duration per Establishment	Per Cent of Establishments in which Strike			Per Cent of Establishments involved in Strikes		Per Cent of Failures among Strikes	
						Succeeded	Succeeded partly	Failed	Ordered by labor organizations	Not ordered by labor organizations	Ordered by labor organizations	Not ordered by labor organizations
1881	471	2,928	101,070	129,521	12.7	61.37	7.00	31.63	76.88	23.12	28.30	42.69
1882	454	2,105	120,860	154,671	21.9	53.59	8.17	38.24	76.20	23.80	34.10	51.50
1883	478	2,759	122,198	149,763	20.6	58.17	16.09	25.74	84.74	15.26	17.62	70.78
1884	443	2,367	117,313	147,054	30.4	51.50	3.89	44.61	83.10	16.90	41.13	61.75
1885	645	2,284	158,584	242,705	30.0	52.80	9.50	37.70	72.81	27.19	27.00	66.35
1886	1,432	10,053	407,152	508,044	23.3	34.51	18.85	46.64	87.87	12.13	46.06	50.86
1887	1,436	6,589	272,776	379,676	20.9	45.64	7.19	47.17	87.22	12.78	44.45	65.68
1888	906	3,506	103,218	147,704	20.3	52.22	5.48	42.30	87.44	12.56	38.84	66.14
1889	1,075	3,786	205,068	249,559	26.2	46.49	18.91	34.60	79.74	20.26	33.02	40.81
1890	1,833	9,424	285,900	351,944	24.2	52.65	10.01	37.34	90.58	9.42	35.84	51.69
1891	1,717	8,116	245,042	298,939	34.9	37.88	8.29	53.83	92.00	8.00	53.44	51.56
1892	1,298	5,540	163,499	206,671	23.4	39.31	8.70	51.99	91.16	8.84	51.92	52.65
1893	1,305	4,555	195,008	265,914	20.6	50.86	10.32	38.82	87.93	12.07	35.17	65.39

STRIKES IN THE UNITED STATES: 1881–1905 — *Continued*

(From the Twenty-first Annual Report of the Commissioner of Labor)

YEAR	STRIKES	ESTABLISHMENTS	STRIKERS	EMPLOYEES THROWN OUT OF WORK	AVERAGE DAYS DURATION PER ESTABLISHMENT	PER CENT OF ESTABLISHMENTS IN WHICH STRIKE			PER CENT OF ESTABLISHMENTS INVOLVED IN STRIKES		PER CENT OF FAILURES AMONG STRIKES	
						Succeeded	Succeeded partly	Failed	Ordered by labor organizations	Not ordered by labor organizations	Ordered by labor organizations	Not ordered by labor organizations
1894	1,349	8,196	505,049	660,425	32.4	38.09	13.50	48.41	88.72	11.28	48.98	43.94
1895	1,215	6,973	285,742	392,403	20.5	55.24	9.94	34.82	87.51	12.49	30.70	63.61
1896	1,026	5,462	183,813	241,170	22.0	59.19	7.47	33.34	89.97	10.03	30.98	54.38
1897	1,078	8,492	332,570	408,391	27.4	57.31	28.12	14.57	91.83	8.17	10.82	56.63
1898	1,056	3,809	182,067	249,002	22.5	64.21	6.38	29.41	84.54	15.46	24.11	58.40
1899	1,797	11,317	308,267	417,072	15.2	73.24	14.25	12.51	92.24	7.76	9.48	48.52
1900	1,779	9,248	399,656	505,066	23.1	46.43	20.62	32.95	91.07	8.93	29.99	63.03
1901	2,924	10,908	396,280	543,386	29.2	48.77	17.13	34.10	91.97	8.03	32.45	52.97
1902	3,162	14,248	553,143	659,792	25.4	47.31	22.85	29.84	94.14	5.86	27.97	59.88
1903	3,494	20,248	531,682	656,055	29.1	40.87	23.40	35.73	95.49	4.51	34.51	61.71
1904	2,307	10,202	375,754	517,211	35.5	35.28	15.28	49.44	95.42	4.58	48.66	65.74
1905	2,077	8,292	176,337	221,686	23.1	40.17	11.45	48.38	92.43	7.57	47.12	62.74
Total	36,757	181,407	6,728,048	8,703,824	25.4	47.94	15.28	36.78	90.34	9.66	34.65	56.31

standpoint the strike is an evil, and all justifiable means should be employed to prevent its occurrence.

We must not conclude, however, that workingmen and labor organizations are wholly or even mainly responsible for strikes. Indeed there are reasons to believe that the employers are more often responsible for strikes than the employees. If a body of men agree not to work for a given employer unless that employer complies with certain conditions, whose fault is it if the employer refuses to comply and a strike follows? Very evidently the fault may lie with either the master or the men, or with both. The fault lies with the men if the conditions which they demand are, in view of all the circumstances, unreasonable and extortionate. The fault lies with the employer if he refuses to grant reasonable conditions of employment. Sometimes the fault is with one, sometimes with the other; sometimes the one gains by the strike, sometimes the other; but the public, which is never at fault, stands always to lose. The greatest lesson to be derived from a consideration of strikes is the necessity of their suppression in the interest of the general public.

One of the greatest evils attendant upon the strike is the violence emanating from both sides — from employers' associations as well as from labor unions. It is frequently said that labor violence is diminishing with the passage of years. The statement is both true and untrue. A close study of labor disputes in the early period of the modern labor movement makes it very plain that the average strike of that period was attended with much more violence than the average strike of to-day. Most labor leaders have thoroughly learned the lesson that violence does not pay, and they exert every effort to suppress it. But at the same time the average strike of the present time is attended with some violence or coercion, and the steady increase in the number of strikes makes the aggregate volume of violence now greater than it was in the past.

Historically, also, a striking change has shown itself in the character of the violence employed. In the past, labor lawlessness was more or less sporadic; brutal, it is true, but frank and unpremeditated. The lawlessness of to-day, however, has taken on a far more sinister form ; it has become deliberate, premeditated, in many cases official. No disinterested person can sift the testimony in the labor troubles in the mining industry of Idaho and Colorado without admitting that there has been a certain amount of carefully planned violence perpetrated with the passive consent, if not with the active encouragement, of union officials. There can be no doubt, also, that individual employers and employer associations have stooped to equally reprehensible practices. They have employed as watchmen or detectives ex-convicts, thugs, and professional bad men, who unquestionably have not refrained at times from perpetrating violence in order to cast discredit upon the unions. It is impossible to say who began the trouble, and just as impossible to conclude which side is the most to blame ; the lesson to be drawn is the public necessity of suppressing and punishing violence or intimidation, when practiced by either side of the controversy.

Employers' Associations. — The development of modern employers' associations has been briefly described in an earlier chapter. Their activities give rise to a movement which may be briefly described as an anti-labor movement. They are, in almost every respect, the natural foil and counterpoise of the labor organization. They resemble the association of laborers even in structure. Thus we have employers' associations recruited entirely from one industry, such as the Stove Founders' National Defense Association ; associations of employers in distinct but related industries, such as the national Metal Trade Association ; and mixed associations in which all kinds of employers are united, such as the Citizens' Alliances, so common now in many of the Western cities. To complete the analogy, these associations are combined in city, state, and national federations; thus forming large confederacies, similar in scope and activity to the state and national federation of labor.

We find the same resemblances between employers' associations and labor organizations when we examine the policies and aims of the former. Thus they make frequent use of the lockout ; the Stove Founders' National Defense Association, for example, began its interesting career with a lockout of the iron molders in the employ of its members. Like the trades unions, also, they have their legislative committees or lobbies, and are credited, for instance, with having played an important part in defeating the eight-hour and anti-injunction bills which have been before Congress several times. Some of these organizations also maintain so-called labor bureaus, whose function it is to secure accurate information of the workmen in the trade, so that troublesome agitators may be refused employment; and the methods employed in this branch of the work gives rise to something closely akin to the "unfair list" published by the American Federation of Labor and many national unions. Some of the more radical associations have stooped at times to violence and coercion, as was illustrated in 1904 by the employers' associations of the Cripple Creek district which boycotted business firms, forced public officials to resign by threats or violence, and filled the vacant places with their own adherents.

Some of the employers' associations, like the Stove Founders' National Defense Association, are conservative in tone and policy, working harmoniously with the labor organizations in the industry, and going no farther than to endeavor by every legitimate measure to further the interest of the affiliated employers. Such associations are exceedingly helpful in furthering that régime of peaceable collective bargaining to which most students of this subject look forward as the ultimate outcome of present-day tendencies. They are thus doing in an effective way the work of industrial peace. Another group, however, illustrated by the National Metal Trades Association, while they are temperate in tone and wage no warfare on the labor organization as such, nevertheless maintain certain fundamental principles which are directly in conflict with the fundamental tenets of trades unionism. These associations, for instance, maintain that the method of wage payment — *i.e.* whether wages shall be reckoned by the hour, the piece, or the premium system — is a matter which concerns the employer alone, and they refuse to submit such questions to collective bargaining or arbitration. Associations in the second group do not needlessly foment strifes with the unions, but they regard industrial peace as a consideration secondary to the maintenance of their fundamental principles, and accordingly they have been involved in a number of protracted strikes and disputes. Finally, there is a third group of employers' associations, of which the average citizens' alliance is a good example, which may be correctly described as "union smashers." Such associations have little regard for the establishment of sound principles of collective bargaining, and they are usually violently opposed to any recognition of organized labor; their aim is to weaken and harass their enemy, the labor organization, whenever possible.

Owing to this difference of policy among the various employers' associations, it is difficult to predict how the anti-labor movement will affect that question in which the public interest is greatest — the question of industrial peace. For some little time, perhaps, the militant enthusiasm of the more belligerent associations will probably result in multiplying strikes and lockouts. In the end, however, they will probably contribute effectively to the maintenance of industrial peace by checking the more extortionate demands of the unions and by securing that degree of organization among employers which is necessary for the successful operation of collective bargaining. If wage earners are to act in concert by common or standard rules, it is evident that eventually they will have to deal with an organized body of employers; and the sooner such organization of employers is perfected, the sooner will collective bargaining be established as the regular method of determining conditions of employment.

The Agencies of Industrial Peace. — Although collective bargaining does not necessarily and in every instance operate to discourage strikes, its net influence is unquestionably favorable to the maintenance of industrial peace. Where a powerful trades union exists, and the employers resolutely refuse to deal with it, strikes are frequent. Where the opposite policy is pursued, and the employers frankly recognize the union, strikes are infrequent. Thus, there has been no great trouble for years in the stove foundry, bituminous mining, and newspaper publishing industries, in which general conventions between the respective labor and employers' organizations are regularly held for the adoption of terms of employment for the ensuing year.

Trade Arbitration. — In England, many, if not most, of these recurrent conferences are based upon formal treaties, which provide for arbitration in case the two parties cannot come to an agreement concerning terms. This is frequently referred to as *trade arbitration.* But in the United States most of the general conferences are based upon agreements which do not provide for arbitration at all. Peace is maintained, although neither side promises in any way to refrain from strikes or lockouts. Mutual respect and free discussion prevent actual warfare. Indeed, many authorities upon this subject are inclined to think that the introduction of arbitration, even as a last resort, weakens the efficiency of collective bargaining. It is almost always necessary for both sides in collective bargaining to make some compromises; and this necessity imposes upon the representatives of the trades unions the disagreeable duty of reporting to their constituents that they have not secured the exact terms which they were instructed in the beginning to demand. Because of this fact, if a provision for arbitration exists, the union representatives are disposed to throw the responsibility of disappointing their followers upon the shoulders of the arbitrators.

Moreover, it has been pointed out that collective bargaining is essentially inconsistent with arbitration. Collective bargaining is commercial and elastic; it deals with the formulation of future terms of employment; it looks to securing the best results possible; it has no rational foundation save the willingness of the parties concerned to get the most possible for their labor or their money, as the case may be; whereas arbitration is judicial in essence, and its successful application implies the acceptance of some established principle of wage adjustment, in the justice of which both parties acquiesce. It is unfortunate but true that up to the present time no one has ever formulated a doctrine of wage adjustment which is at once workable and acceptable to a majority of the people. Arbitration is a perfectly logical device, and works successfully in the interpretation of minor difficulties growing out of a broad agreement which has already been accepted. Or, if both sides adopt some governing principle, it is perfectly possible for a disinterested arbitrator to decide what this principle demands in a given situation. But as a helpful device in securing the initial adoption of a fundamental agreement, trade arbitration is believed to be illogical in principle and foredoomed in practice to failure.

Voluntary Arbitration.—There are, of course, many other kinds of arbitration which have proved helpful in maintaining the industrial peace. Most advanced states now maintain boards of conciliation and arbitration, whose business it is to prevent strikes if possible, and to adjust or settle them after they occur. And the Conciliation Department of the National Civic Federation has also to its credit the prevention and settlement of a large number of important strikes. But, for the most part, these voluntary boards of conciliation and arbitration have shown little ability to cope with the real situation. They have achieved enough to justify their existence, but not enough to warrant the acceptance of voluntary arbitration as an adequate remedy for the evil.

Much more could be made of voluntary conciliation and arbitration than has been made in the past. The short but very promising history of the Canadian Industrial Disputes Investigation Act of 1907 suggests that a law which, like the Canadian Act, forbade strikes and lockouts in important industries until an impartial board of conciliators had had time to investigate the dispute and publish their recommendations and findings concerning the equities of the case, would go far toward delivering us from the more injurious industrial conflicts. The vital provisions of such a method of conciliation are: (1) the prohibition of strikes and lockouts before and during the investigation; (2) widespread publication of the findings of the board of investigation and conciliation; and (3) full permission to strike or lock out after the publication of the findings.[1]

Compulsory Arbitration. — In New Zealand an even more radical remedy — "compulsory arbitration" — has been tried. Seven workingmen in any industry may organize a union and lodge a demand for better conditions of employment before arbitration boards, whose decisions, when ratified by the supreme or central court of arbitration, are absolute and binding. Similarly, any employer whose workmen are organized in a union may take a case to the arbitration tribunals for settlement. An award of the central court of arbitration may be extended by the court to all competitors of the original employer in the colony. In this way, compulsory arbitration brings about the introduction of minimum wages and other conditions of employment, *established by the authority of the state and enforced, not only by the watchful eyes of the parties concerned, but by the factory inspectors themselves.* In Victoria and South Australia much the same results are reached through the agency of wage boards, — containing representatives of both the employers and their employees with a chairman selected by these representatives or appointed by the government, — which are empowered to prescribe minimum wages and other conditions of employment, that are enforced, as in New Zealand, by the factory inspectors. Strikes, however, are not prohibited under this system.

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[1] An admirable description of the Canadian Act, from the pen of President Eliot, may be found in *McClure's Magazine* for December, 1907.

It is impossible to enter into a detailed discussion of either the New Zealand or the Victoria system at this place. Both systems have been in operation since 1896, both have been extended to other Australian colonies, and both have been partially successful. But the probability that either system will be introduced into this country is so small as to make their discussion unnecessary here. Both systems would conflict with our constitutional law, and both would at the present time be regarded as entirely too radical by the American people. Moreover, a large majority of trades unionists in this country are strongly opposed to compulsory arbitration. The significance of the New Zealand and Australian movement is found in the regulation by the state of the rate of wages.

The Ultimate Solution. — In arriving at a decision concerning the measures which ought to be taken to maintain industrial peace, it should be remembered that strikes are much more destructive and dangerous in some industries than in others, and that here, as in most other economic problems, it is dangerous to proceed on general principles. In most industries, in our opinion, the strike question may safely be left to the enlightened self-interest of the parties concerned, trusting to collective bargaining and the work of voluntary arbitration to prevent an excessive amount of war. In small competitive industries the peaceful strike is not necessarily an alarming phenomenon.

Slowly and surely, however, the opinion is gathering force that in those industries which vitally touch the public welfare (such as the anthracite coal industry, railway transportation, and the like) the public ought, and by an exercise of legal ingenuity might, find means to preserve the peace whether the two parties immediately concerned desire peace or not. Compulsory arbitration in competitive industries would unquestionably be unconstitutional in this country. But with quasi-public industries, "industries affected by a public interest," the question is entirely different. If, because of their monopolistic character and their intimate connection with the convenience of the public, the legislature may regulate the service and the rates of such industries, it would seem to follow even more clearly that the legislature may adopt any measure necessary to prevent the utter cessation of such industries by strikes and lockouts. If, for instance, the fare charged by a street railway may be regulated by the state, in order to prevent monopolistic extortion, how much more justifiable would be the action of the state in preventing the complete interruption of the traffic of the railway by means of a strike or lockout! We cannot pursue this topic in detail, but must close the discussion with a simple expression of belief that compulsory arbitration for industries affected by a public use would be constitutional and practicable.

Profit Sharing. — Profit sharing attempts, not to provide a remedy for industrial disputes, but to anticipate and prevent them by assigning to the employees a share of the profits fixed in advance. It is held that this arrangement enlists the employees' interest in the success of the business, makes them more economical, and so increases their zeal and efficiency that the share of profits which they receive does not reduce in the long run the earnings of the employer. In other words, the employees create the fund from which their bonus is paid. This bonus may be paid in many different ways: either in cash at the end of the business year, or in shares of stock in the company in question, thus making the workman partial owner of the business; or it may be amassed in a savings or insurance fund, from which in his old age the workman receives a pension, or his family an annuity or cash premium at the time of his death. The last method of profit sharing is usually spoken of as *deferred participation.*

Neither historical study nor theoretical analysis of profit sharing furnish reasonable ground for the belief that this method of industrial remuneration will ever play an important part in solving the modern labor problem. The principle of profit sharing was recognized by the French economist and statesman, Turgot, in 1775, but the first permanently successful experiment in profit sharing was begun by the celebrated French firm of Leclaire in 1842. By 1878, 120 cases were known to be in existence; in 1891, about 300; in 1900, probably no more were in existence than in 1891, although one authority fixes the number at 400. In the United States, at the present time, the system is employed in probably no more than twenty establishments. Since 1896, moreover, and particularly in England, the number of firms which regularly share profits with their employees has fallen off; and confidence in the system as a method of solving the labor problem is unquestionably diminishing.

The reasons why profit sharing has not proved more successful are various. In the first place, it has incurred the enmity of most labor leaders, who oppose it because it has often been introduced after a disastrous strike as an antidote to trades unionism, and because they believe that it stimulates the men to work beyond their strength, and eventually results — as overspeeding always results — in reduced wages.

In the second place, it is illogical and inconsistent as explained by most of its advocates. The latter assert that the workmen create the fund from which their dividends are paid by increased care, zeal, and speed. If this be true, and the system can hardly prove a permanent success unless it is true, the end which profit sharing seeks would be better achieved by the piece rate or gain-sharing methods of wage payment. By both of these methods the worker gets his premium for extra zeal and efficiency as part of his wage, not as a gift; gets it on pay day, not at the end of the year; and feels as free to bargain and higgle about the size of the premium as he does about the size of the wage. Moreover, his premium cannot be dissipated by unwise management or dishonesty on the part of the employer, and it cannot be lost by reason of his death, discharge, or change of employment.

Profit sharing has failed because it is unbusinesslike and smacks of philanthropy. The average employer consciously or unconsciously expects something in return for the dividends which he distributes. And if he does expect a return, it is far better that he should pay for it by a method which is certain, fixed by contract or bargain in advance, and paid, not at long intervals, during which it is threatened by the varying fortunes of the business, but at the end of the week or month when ordinary wages are paid. Of course, if in addition to fair wages the employer wishes to distribute a gratuitous dividend at the end of the year, for which he expects nothing in return, the employee is not likely to object, and the generosity of the employer will probably do no harm. But such a system of profit sharing cannot be expected to become prevalent throughout a competitive commercial system in which most employers cannot be philanthropists, even if they desire. Moreover, human nature is so constituted that gifts of this kind create in the mind of the giver an inevitable expectation of recompense.

Industrial Democracy. — The industrial organization of the past was despotic. The despotic principle, the one-man power, is an excellent thing in its own time and place. It gives to industry the elasticity, celerity, and general efficiency which come from singleness of aim; and in industry, despotism has continued longer than in the political sphere. But it is merely a phase of development and ought not to be regarded as final. Elsewhere the despotic principle has been softened or dissipated, — in politics, in religion, in the family, — and eventually this discordant element is bound to disappear or undergo serious modification in industry. The whole labor movement is a concerted and united effort to achieve *industrial democracy*, which means self-rule, self-control, the self-direction of the masses in their efforts to gain a livelihood. It is primarily because profit sharing means a departure from, and not an approach toward, industrial democracy that we are forced to reject it as a progressive step in accomplishing those ends which the labor movement is inaugurated to achieve. A far more consistent method of securing self-government is found in coöperation.

Coöperation is of two kinds, coercive and voluntary. Coercive coöperation, which implies a partial or complete application of socialism, is discussed in another chapter.

Voluntary coöperation takes many different forms, among which we may distinguish: (1) distributive or consumers' coöperation, sometimes spoken of as coöperative buying; (2) coöperative borrowing or coöperative credit; (3) coöperative marketing; and (4) producers' or pure coöperation.

Consumers' or distributive coöperation has no necessary connection with the transportation of goods, but refers merely to a method of retail or wholesale exchange. Purchasers of groceries, dry goods, and the like come together to purchase what they need, and thus eliminate profits. They form a stock company, subscribe for shares, employ a manager and clerks, — who often do not even share in the profits, — and start a business. Dividends are sometimes paid only on shares, but the approved way is to pay a moderate interest on capital and to divide profits among the customers in proportion to their purchases, the division being made at the end of stated intervals. Usually a larger dividend is distributed to shareholders than to ordinary customers; and in some cases the employees receive as large a bonus as the shareholders. Profits are thus said to be divided among capital, custom, and labor. But so far as labor is concerned, the most that can be said is that it receives a small share of the earnings; labor does not coöperate in the sense that it has an important voice in the management of the business. The scheme is one of distributive coöperation plus profit sharing, not one of pure coöperation.

Coöperative credit and coöperative marketing are familiar phenomena in the United States — the first in the form of the well-known building and loan association; the second in the form of fruit growers' association, coöperative elevator companies, and the like, formed for the purpose of securing better terms and facilities from railroads, commission houses, and middlemen in general. In 1902–1903, for instance, there were 5299 building and loan associations in the United States, with a membership of 1,530,707, and total assets of $577,228,014. About the same time (1902) there were also 994 coöperative telephone companies, operating 89,300 instruments.

The good which these coöperative associations have accomplished is enormous, and there can be no doubt of their practicability. They have not only proved commercially profitable to the participators, but they have trained them to "team work" and inculcated the spirit of mutual concession, the give and take of concerted endeavor, which makes for social solidarity and constitutes such an indispensable element of good citizenship in a democratic state.

But they have done little and promised to do little in solving the labor problem or in essentially improving the distribution of wealth. They are, for the most part, composed of small capitalists, farmers, or salaried men, — not wage earners, — and in organization differ little from democratically managed stock companies of the usual type. Many, if not most, of the marketing associations are profit-making concerns whose employees have no more voice in the selection of their bosses, and no more share in the management of the business, than the employees of an ordinary corporation. Even in the British competitive societies the employees have no share in the management, and though some of the associations — notably the Scottish Wholesale Society — indulge in a mild species of profit sharing with their employees, the result is not industrial democracy, not self-government, but merely joint-buying plus a paternalistic scheme of profit sharing. The limits of the success of the British coöperative movement are suggested by the fact that the employees of the coöperative societies have formed themselves into a trades union for the betterment of their condition of employment.

While consumers' coöperation and coöperative marketing — both designed to abolish the profits of the middleman — are important and praiseworthy forms of economic association, they have little effect upon the wage-earning classes, and offer no remedy for the antagonism between capital and labor in manufacturing industries. The variety of coöperation which really copes with these questions and seriously attempts to regenerate the wage system is producers' coöperation. The essential features of this form of coöperation are (1) that each group of workers is to be associated by their own free choice; (2) that these associates shall work under a leader elected and removable by themselves; and (3) that the collective remuneration of the labor performed by the group shall be divided among all its members (including the leader) in such a manner as shall be arranged, upon principles recognized as equitable by the society themselves.[1]

Successful coöperative experiments fulfilling the above conditions are seldom met with. They are not unknown. Here and there a man of transcendent commercial genius and extraordinary sympathy has succeeded in democratizing his business, turning it over to his employees and so impressing his spirit and his methods upon his successors that the business continues to prosper under the régime of self-government. An illustration is found in the *Godin Familistère* of Guise, France, which, beginning with a scheme of profit sharing in 1877, has finally resulted in the establishment not only of a coöperative manufacturing enterprise, but in the successful conduct of what practically amounts to a coöperative community.

But such cases are rare. Most experiments in producers' coöperation have failed, and we fear they must continue to fail. They simply cannot meet the competition of businesses organized in the ordinary way, directed by one man or set of men with all the efficiency, mobility, and adaptability that come from singleness of aim and undivided management. Industrial democracy, as achieved in the coöperative form of industrial organization, is too unwieldy, too slow, too mechanical. Multitudinous management means relatively uncertain, indecisive, and inefficient management.

A modified form of producers' coöperation is not unknown among the manufacturing industries of this country. An approximate idea of the extent of this form of industrial organization may be gathered from recent census statistics. In 1905 the statistics of manufactures relating to form of business organization show a separate class of "miscellaneous business organizations" which we are told consists almost entirely of coöperative manufacturing concerns. There were in this group 3203 establishments (constituting 1.5 per cent of all manufacturing establishments) with a capital of $20,729,744 (0.2 per cent of the aggregate capital), employing 8520 persons (0.2 per cent of all wage earners), producing goods with an annual value of $54,466,028 (0.4 per cent of the aggregate product). Most of these associations are coöperative creameries; and it is interesting to note that in this great industry — which was coöperative in origin — the proportion of coöperative concerns is steadily diminishing. These figures furnish a maximum estimate of producers' coöperation in the United States, and a large majority of the concerns credited to coöperation in this enumeration would fail to satisfy a strict definition of producers' coöperation. For the most part they represent a form of coöperation among farmers and small capitalists who stand on an equality as among themselves, but give their employees no real share in the management of the business.

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[1] Schloss, *Methods of Industrial Remuneration*, p. 228.

The wage system, whatever its defects, has one striking virtue — certainty. The wage earner knows what to expect and gets what he expects. He is insured against risk of loss, and although he may pay too high a price for his insurance, the insurance itself is a highly desirable thing. It is one of the weaknesses of producers' coöperation that the workman is encouraged to invest his savings in the hazardous competitive experiments in which he is engaged. He becomes part owner of the enterprise, to be sure, but by doing so he assumes the risk of failure, a risk which, other things being equal, it is desirable to eliminate. It is probable that the ultimate method by which industrial democracy is achieved will retain that feature of the present wage system by which most of the workers are insured against business losses.

Indeed, we expect to see industrial democracy achieved through the labor organization. Since the formation of the trades union and the introduction of collective bargaining, the range of this bargaining has constantly widened. Beginning with questions of wages, hours of labor, and apprenticeship, it has gradually spread, until at the present time some unions bargain about the sanitary conditions of the work, the introduction of safety devices, the employment of women, the use of machinery, and the status of the men with whom their members work. A very few powerful unions insist that the foreman under whom their members work shall belong to the union, demand a voice in the discharge of employees, and try to force the employer, when taking on new men, to select them in order from lists of unemployed journeymen prepared by the union. These demands, of course, may be harmful; the working classes will have to learn by experience what measure of control it is best to have in the hands of the employer. The fact that power may be abused, however, is really beside the point. The point lies in the possibility, and in general the desirability, of extending the range of collective bargaining until the employees shall have a voice — and it is to be hoped a prevailing voice — in determining all the conditions of employment. Through collective bargaining the control of the employees over the business may be indefinitely expanded. Once having secured control, the majority will learn, as they have in political life, to leave certain particularly delicate questions to their industrial captains. In the past, labor has had to seek capital and serve it. In the future, capital may have to seek and serve labor. The past may be pictured by the single entrepreneur with his capital hiring a thousand men to do his bidding. The future may behold the thousand hiring the entrepreneur and his capital to do their bidding. And the latter is the more pleasing, the more democratic, and altogether the more wholesome picture.

These words are written in no spirit of advocacy, and with no intention of palliating the obvious shortcomings of the trades union. But the fact remains — whether we like it or not — that economic theory and economic history unite in the conclusion that the union has come to stay as long as the system of capitalistic production. The union must be improved, it cannot be extirpated; and the most urgent task of the present is to convince employers and unionists that there will be no real peace until employers acknowledge the inevitableness of the union, and unions acknowledge — sympathetically and in practical ways — the social serviceableness of the employer. Trades unions have been guilty of many sins — violence, monopoly, political corruption. But their gravest danger at the present time is a false philosophy, in accordance with which many unionists have come to believe that the best way to help the union is to oppose the employer. This is not true of the more wisely conducted unions. The railway brotherhoods frequently unite with the railway managers in securing legislation favorable to the railway industry; and the history of the National Civic Federation, for example, proves that a number of the opposing leaders are keenly aware that capital and labor have interests in common as well as in opposition. In some way, however, united labor as a whole has got to learn this lesson — how to drive just as favorable a bargain as possible with the employers in the first instance, and then, the bargain having been made, to bend every effort in loyal coöperation with the employer to make the business the greatest possible success. This is not mere platitude. In the long run, and whether we like the fact or not, productive efficiency is the supreme economic virtue; and the institution that stands in its way will perish. The trades union must bring into industry something besides conflict, or it will disappear. The union that so conducts itself as to make the non-union man or the non-union shop more efficient than the union man or the union shop, in the long run, simply puts a premium upon the suppression of unionism.

QUESTIONS

1. Is the industrial or the trades union the more logical form of organization? Can the two be reconciled? Mention as many kinds of jurisdiction disputes as you can.

2. Does the trades union rest upon a sound economic basis? Is it likely to endure? Is it in any large degree responsible for the conflict between labor and capital?

3. Are all attempts to achieve a monopoly illegitimate? Is there more justification for labor monopolies than industrial monopolies?

4. Is the policy of the closed shop ever justifiable? Intimidation of non-union men? restriction of apprenticeship? regulation of output?

5. The strike has been defined as a "concerted cessation of work"; is this definition correct? Have men a "right" to strike whenever they wish? Are employers justified in "locking out" their men at pleasure?

6. Are "organized" strikes more successful than "unorganized" strikes? Are strikes more or less successful than formerly? Do they last longer?

7. Is the "blacklist" more justifiable than the boycott? Can either the 'blacklists" or the boycott be conducted in a lawful manner?

8. Distinguish between trade arbitration, voluntary arbitration, "com-

pulsory investigation," and compulsory arbitration. What are the defects of arbitration as a method of settling labor disputes?

9. Why do labor leaders oppose compulsory arbitration? Is their opposition a sufficient reason for rejecting it? Why is the plea for compulsory arbitration particularly strong in the case of monopolistic industries?

10. How does "gain sharing" differ from "profit sharing"? Is profit sharing necessarily paternalistic? If so, is this a defect?

11. Does consumers' coöperation materially advance industrial democracy? Is producers' coöperation likely to grow and expand?

12. How can a large measure of industrial control be secured for the wage earner through the trades union? Other things being equal, is it desirable that the wage earner should secure a large measure of control? Is it permissible to assume that other things will be "equal"?

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CHAPTER XXIV

INTEREST

INTEREST is the price paid for the services of capital. It appears in two forms: *loan interest,* the amount paid by one man to another for the use of money or goods owned by the latter, and *imputed interest,* that portion of the value of the products of industry which is attributed or imputed to the services of capital, as distinct from the services of land and labor. Interest is usually measured as a percentage of the money value of capital, and this, coupled with the fact that capital is often lent in the form of money, has led to the prevalence of the idea that interest is a payment for the use of money. This is only a partial description of interest, however, for it does not include imputed interest nor the loan interest paid for the use of many forms of capital — buildings, for example.

Objections to Interest Taking. — It is only in modern times that interest has been generally considered a legitimate and necessary form of income. The strong denunciations of usury contained in both the Old and New Testaments are denunciations of interest taking, for the word "usury" formerly meant any kind of interest, and not merely excessive interest, as at present. The opinion of many classical writers is illustrated by Aristotle's dictum that "money was intended to be used in exchange, but not to increase at interest." During the greater part of the middle ages the authority and teaching of the church was set definitely against the taking of interest in any form. In the middle of the fourteenth century the prohibition of usury was incorporated in the civil law. These objections, however, had reference chiefly to loan interest, and interest on money lent for personal use at that; for capital was not thought of as one of the factors in production until comparatively modern times. In fact, by the fifteenth century, when opportunities for the profitable use of money had appeared in such forms as the purchase of rights to receive land rents, or partnership ventures in trade (where interest was held to be justified by the risk incurred), the canonists (the writers on church law) admitted the legitimacy not only of such gainful employments of money, but also, in many cases, of interest on loans. The justification of loan interest took on at first many curious forms. It was regarded in some cases as a fine for delay in the repayment of the loan, so that lenders often resorted to the subterfuge of lending money gratuitously for a nominal period, the real agreement being that they were to get back their money principal, with a fine for the delay added, at a later date. In other cases loan interest was justified as a payment for the loss of the possible gains which the lender might have got by using his money himself. Usury, which at first meant any kind of loan interest, came to mean interest on money loans to relieve personal needs, rather than for gainful employment, then interest on loans in which the element of risk was lacking, and finally, excessively high interest.

To-day the use of capital is so prominent a feature of our productive methods that the legitimacy of interest is not generally questioned. Socialistic writers, however, insist that interest is only a result of the system of the private ownership of capital, and that with the abolition of private property in production goods what is now counted as interest would become part of the wages of labor. It is accordingly important that we should understand clearly *why* interest has to be paid, as well as that we should study the factors determining the *rate* of interest. We shall find, however, that the explanation of the necessity of interest is really a part of the explanation of the rate of interest.

1. **Inadequate Explanations of Interest.** — An idea that naturally suggests itself is that interest has to be paid for the use of money because "money can be profitably employed in business." This explanation, which is very much like one of the ways in which the canonists finally came to justify interest, is obviously inadequate. It is only an attempt to explain loan interest by assuming the existence of imputed interest. What we want to know is why "money can be profitably employed in business."

2. A similar, but somewhat more definite, attempt at an explanation is contained in the statement that interest is paid because capital is productive. It is pointed out that by the use of capital goods the product of industry is greatly increased over what could be produced by labor and land alone. This is, of course, true, but taken alone it does not explain interest. The problem of interest relates to the *value* of the product, not to the *amount* of the product. There is nothing in the mere quantity of the product that gives value to it. The farmers of this country have found more than once that a large wheat crop has sold for less in the aggregate than a small one. The real problem of interest is this: Why

can an entrepreneur, by the use of capital, increase the selling value of his product enough to not only pay for the capital actually used up in production, but also to pay in addition a surplus in the form of interest upon the capital employed? Nor can we say that "capital produces interest." It cannot be too strongly emphasized that neither land, nor labor, nor capital produces value. They are simply the instruments used in the production of things that are valuable because they satisfy human wants, and hence command a price in the market. Part of the value of the product is *imputed* or attributed to capital in the form of interest, and it is because of its capacity to earn interest that capital is valued. To say that capital produces value is to reverse the true process. Capital goods produce (or aid in the production of) other goods, and the value of these produced goods is the cause of capital value.

Why Interest can be Paid. — We shall find the analysis of our problem somewhat simpler if we divide it into two parts: first, why interest is *possible;* and second, why interest *must* be paid. In discussing why interest *can* be paid, we shall assume that interest must be paid if capital is to be used in production, reserving the discussion of the legitimacy of this assumption for the following section.

It is the physical productivity of capital — the fact that capital can be used in coöperation with land and labor in the production of goods — that makes it possible for the entrepreneur to look upon part of his total money income as interest on his investment of capital. Now, as we have seen, the mere fact that capital is productive in the physical sense does not explain interest, but the fact that capital is used *under the guidance of entrepreneurs* in the production of wealth does explain the *possibility* of interest. The mere physical productivity of land does not explain rent — land will grow weeds as well as wheat; nor does the mere physical productivity of labor explain wages — some men have put years into the construction of perpetual-motion machines that are absolutely worthless. But it is the business of the entrepreneur to see that land and labor are used wisely; and from his point of view they are used wisely if they are used in the production of things that consumers want, and want intensely enough to pay such prices as will enable the entrepreneur to pay the rent of the land and the wages of the labor employed. Similarly, an entrepreneur will not employ capital in any kind of production unless the prices he expects to get for his products are such as to cover the expenses incurred in the use of capital. Nor will he knowingly use so much capital that his product will sell for less than a smaller product would have sold for, any more than he will knowingly produce an unprofitably large quantity of goods by the use of too much labor or too much land.

On the one hand, the entrepreneur has to estimate the prices he will get for his products; on the other hand, he has to estimate the productivity and the expense of land, labor, and capital. The expense of capital includes, first, the cost of the capital actually used up in production; and second, interest on all of the capital used, whether "used up" or not (assuming, as previously explained, the necessity of interest). The principles that will guide the entrepreneur as to the relative proportions of labor, land, and capital he will use have already been discussed in connection with the general subject of diminishing productivity. We may, however, emphasize again the fact that productivity must be attributed, not to "capital in general," but to specific units of specific kinds of capital, used in connection with a definite amount of land and labor; the productivity imputed to any particular unit of capital being the precise amount of product actually dependent upon the use of that particular unit — the amount by which the total product would be decreased if the unit in question were not used. An entrepreneur will increase his use of capital rather than of labor or land, when a given expense for any kind of capital will add more to his product than would a similar expense for labor or land.

The Necessity of Interest. — Free goods, such as air or the force of gravitation, are productive in the physical sense, in that they are absolutely necessary to most forms of production. The surface of Lake Michigan is used in producing the service of transportation in essentially the same way as is capital in the form of a railway roadbed and track. But we cannot impute productivity to specific units of free goods, for the simple reason that the amount of the product is not dependent on the utilization of any one unit of them. Any one cubic foot of air could be dispensed with; we cannot even conceive of the force of gravitation as limited in quantity; the great lakes furnish pathways that are more than sufficient for all the vessels that traverse them. We do impute productivity to the better *lands* that are used in production, because any one acre of them could not be withdrawn from use without a diminution in the product. The controlling reason for this difference is that the spontaneous supply of free goods is in excess of the use that is made of them; while the supply of the better lands is limited as compared with the demand for them. This suggests at once why productivity has to be imputed to specific units of capital, and that is, that the supply of capital is limited.

Why is the supply of capital limited? This question leads us to examine the nature of the supply of capital. Imagine a society without capital carrying on its productive processes by the use of labor and land only. So long as the members of this community produce only what they consume directly, or (if, despite the absence of capital, money economy and a system of exchange may be imagined to prevail) so long as they spend all their money incomes for things used up immediately in the satisfaction of their wants, there will be no accumulation of capital. In order that capital shall be furnished, it is necessary that some members of the community turn aside from the production of things that are used in the immediate satisfaction of their wants and devote their time to the production of goods that will be used in further production. Whether they do this on their own account, or whether they are paid for their work while they are doing it by others, some postponement of the satisfaction of wants is necessary. In the one case those who produce the capital goods give up temporarily the satisfactions which they might have derived from the consumption goods they could have produced. In the other case, those who are devoting part of their money incomes to the payment of those who are producing capital goods are giving up the immediate satisfactions which they might have secured with the money. In either case the production of capital involves the sacrifice of *waiting* on the part of some members of the community. But why should waiting be called a sacrifice? Do not those who give up present satisfactions in order that capital goods may be produced get a full repayment if they get back in the form of the products of their capital goods as much as they, for the time being, give up? In other words, why should capital not be furnished for productive purposes if those who furnish the capital get back an exact equivalent (in value) for the amount of capital they have supplied? Why should an extra payment, in the form of interest, be necessary to induce saving?

The answer to these questions is found in the difference between present and future values. Our present wants are more intense than our present estimates of our future wants of a similar kind. We visualize the present more vividly than we do the future; we yield sometimes to the temptation of satisfying the more trivial wants of the present, even when we know that we are thereby rendering uncertain the satisfaction of more important wants in the future; and when we take considerable periods of time into account, we may reasonably say that the uncertainty of life itself gives us some ground for preferring present to possible future satisfactions. Notwithstanding the vast difference between civilized men and savages in this respect, — for many of the latter seem to have absolutely no regard for future needs, — the fact still remains that waiting is a sacrifice, and in order to induce the saving that is a prerequisite to the use of capital in industry, a premium or reward for waiting has to be paid in the form of interest. This fact is the most fundamental thing in the explanation of interest.

It must not be inferred that, in the actual economic life of to-day, no capital would be supplied if interest were not paid. There are other motives that induce men to save parts of their incomes. The desire to provide for old age and for such contingencies as sickness and accident, or to make provision for one's family in case of death, would result in a considerable amount of saving. The mere pride of accumulation, and the fact that the satisfaction of many important wants, such as the desire to own a house, or the desire for foreign travel, necessitate the gradual accumulation of what is to most persons a considerable sum of money, must also be given due weight. None of these motives would in themselves induce men to invest or lend their saved funds in productive undertakings if no interest at all were paid. In fact, this would be a matter of indifference, for savings might just as well be hoarded. But a very low interest premium would suffice to overcome this indifference and to bring about their investment in productive undertakings. Even this low interest rate, however, would be sufficient to balance, in some additional cases, the difference between the intensity of present wants and the intensity of future wants, so that in these cases, in turn, spending or saving would be a matter of indifference — an indifference that would in its turn be overcome by a slight increase in the interest rate. In a similar way every increase in the interest rate would induce more persons to save and would induce many of those who were already saving a part of their incomes to save a larger proportion of them. At any given time, accordingly, the interest rate is considerably higher than would be necessary to compensate for a large part of the waiting that devolves upon those who furnish capital funds for productive purposes. It is just high enough, however, to be a recompense for *marginal waiting*, which is the waiting that would not take place if the interest rate were any lower. If the interest rate is 5 per cent, a dollar to-day is worth a dollar and five cents a year from to-day, not to all savers, but to the marginal savers.

The Investment of Capital. — We have seen that the supply of capital originates in the fact that some people save part of their money incomes, and that interest has to be paid in order to induce this saving. Such persons are said to get an "income from their capital." Strictly speaking, their savings are not productive capital at all, in the sense in which the word "productive" is used in this book. Productive capital consists of the concrete material instruments of production, such as factory buildings, machines, raw materials, merchants' stocks of finished products, and the like. Savings are not productive capital in this sense, but the process by which they are transmuted into productive capital is a simple and familiar one. The simplest case is where the entrepreneur saves part of his own money income and uses his savings in the purchase of additional capital goods, the value of the products of which he estimates will be large enough to repay him for his waiting, as well as to replace his capital as it is used up, that is, to earn interest for him as well as repay the principal. Or, the entrepreneur may borrow money directly from others who have saved it, agreeing to pay annual interest, and in addition to repay the amount of the loan — the principal — at some specified time. In the complex economy of the present, however, it very often happens that the entrepreneur who can use money profitably and the man who has surplus funds to invest do not arrange the transaction directly. Savings are "placed at interest" in savings banks, insurance companies, or other financial institutions, and it is to such institutions that the entrepreneur who thinks that he can use more capital profitably applies for loans.

Very often the entrepreneur is a corporation rather than an individual, but the same three methods of obtaining capital are open to it. The corporation may choose to reinvest some of its net earnings in productive forms of capital rather than to pay them all out in dividends to its stockholders. In the bookkeeping of many corporations, such savings on the part of the corporation are represented by the item called "surplus" on the balance sheet; in other cases, especially with railways, it may happen that these reinvestments of earnings are hidden by unduly enlarging the accounting item of "maintenance" or upkeep of the plant, so that it includes the expense of new additions of capital. When in need of money to meet a temporary emergency, the corporation may borrow from banks just as the individual entrepreneur does. When in need of money for more permanent investment in the durable forms of capital goods, the corporation usually issues its own interest-bearing obligations in the form of bonds, which it sells to banks, insurance companies, and other financial institutions, as well as to individuals. Bond issues are only one way of borrowing money. But whether the money funds are furnished by the entrepreneur or by others, the formation of capital necessitates, first, the saving of parts of money incomes, and second, the use of the funds thus secured in the purchase of capital goods. The expression "investment of capital" is used as a short way of describing this twofold process.

The Replacement of Capital. — It is clear, then, that saving, which necessitates waiting, is a prerequisite to the formation of *new* capital, that is, to an increase of the supply of capital already in existence. But at any given time the capital already in existence forms a very large proportion of the total supply of capital, and it may be thought that the present interest rate does not affect this portion of the supply. We must, however, take into consideration the fact that almost all kinds of capital are being continually used up in production. This using up may be a matter of a single use, as in the case of fuel or raw materials, or it may be a gradual wearing out, as in the case of a machine, but such differences are differences in degree of durability rather than differences in kind.

As we have seen, the entrepreneur will not normally employ any given additional unit of capital unless he expects to get enough from the value of the added product to replace the capital actually used up in production as well as to pay interest. This means that if the entrepreneur's estimates prove correct, part of the money income he gets for his product may be regarded as a *replacement fund,* sufficient in amount to replace the capital used up in production. We must not, however, make the error of thinking of the replacement fund as definite in quantity. Whether or not any unit of capital produces enough to furnish a replacement fund, depends on whether the entrepreneur's estimate is a correct one. There is no reason why unproductive forms of capital should be kept intact in amount. He would be a foolish business man, for instance, who would keep reinvesting a certain amount of money in raw materials in the face of a diminishing demand for the finished product. Even if enough income is earned to form a replacement fund, the capital used up need not be replaced unless the entrepreneur so chooses. A farmer may have saved for years in order to buy a reaper. The reaper will enable him to raise more wheat, or, possibly, to produce the same amount of wheat at less expense. In either case it will mean an increase in his net money income. He can, if he chooses, set aside enough of this added income so that, when the first reaper wears out, his accumulated funds will replace it. From one point of view we may say that in this way the reaper "replaces itself." But the farmer can, if he prefers, use all of his increased income in the purchase of additional comforts and luxuries for himself and his family. In deciding whether he will replace his capital or increase his present consumption, he will be guided by the same kind of an estimate of the relative importance of present and future wants on the one hand, and of the amount which the capital will add to his income, on the other hand, that guided him in the original saving which led to the purchase of the first reaper.

Similar illustrations can be found in other kinds of undertakings. Many business enterprises have failed because business men have "lived beyond their incomes" — which often means simply that they have not replaced their capital so rapidly as they have used it up. Many American railways have maintained a specious prosperity for many years by paying "unearned dividends"; that is, by letting their capital (roadbed, rolling stock, buildings, etc.) deteriorate through not expending enough of their gross income in the maintenance of their way and equipment.

The stock of capital in existence at any one time is the result of past saving. But this stock of capital cannot be maintained intact without more saving. From this point of view we may say that the sacrifice of present goods for future goods which society undergoes in order to reap the advantages of capitalistic production is not something that is done "once for all," but is a continuous sacrifice.

The Shifting of Investment. — As a matter of fact, a large amount of the capital that is used up in production is not replaced, for the simple reason that entrepreneurs find that some particular kinds of capital are not profitable; that is, they do not add enough to the value of the entrepreneurs' total product to repay them for their cost (including interest and replacement). It may happen that the entrepreneur has been mistaken as to the technical efficiency (or productivity) of his capital, or that he has overestimated the demand for his products. New inventions or new methods of production may lessen the income yielding power of part of the existing stock of capital, or capricious changes in demand may have a similar effect. On the other hand, these new methods of production and these changes in demand are making new forms of capital profitable. Even if the "replacement fund" were a definite and rigid annual sum, it would not be entirely devoted to replacing the particular kinds of capital that had been used up in production. There would be a continual shifting from the less profitable to the more profitable forms of capital.

We often hear it said that capital is transferred from one industry to another, or from one locality to another, or from one country to another. Such expressions are misleading. Capital goods are not usually transferred in this fashion, although in exceptional cases it may happen.[1] These statements often mean that the *ownership* of capital changes, as when a capitalist sells his holdings in one industry to another capitalist and invests his own funds in another undertaking. The most important way in which "capital is transferred" is through that gradual shifting in the forms of investment which has just been described.

The Relation of the Durability of Capital Goods to Investment. —The ease with which investments of capital may be shifted varies for different forms of capital. Especially important in this connection is the durability of capital. As has been already suggested, some forms of capital are destroyed as capital by a single use. The fuel and raw materials used in a manufacturing establishment and the merchant's stock in trade belong to this category. The merchant's stock in trade becomes consumption goods in the hands of consumers: raw materials reappear in the finished product, as do other forms of capital for that matter, although in a less obvious sense. But the fact remains that these particular forms of capital investments yield their services only once, and when they are once used by the entrepreneur for the purpose for which they were intended, they cease to be capital.

From such transient forms of capital we may pass by insensible gradations to capital goods which yield a long succession of services, the series culminating in such durable forms of capital as buildings used for productive purposes, or railway roadbeds. If a particular form of capital lasts for exactly a year, — the period of time usually taken as a unit in the computation of the rate of interest, — estimating the expense of employing such capital is a very simple matter. If, for example, the rate of interest is 6 per cent, an entrepreneur would not invest $1000 in such capital unless he estimated that it would increase his product by an amount that would sell for at least $1060. In the case of the more transient forms of capital, however, the computation is usually made by taking into account the "rate of turnover." A manufacturer may be continually buying raw materials and making them into finished products. If the raw materials purchased during a year cost $3000, but if, on the average, only $1000 is invested in raw materials at any one time, the capital is said to be "turned over" three times during the course of the year. The interest rate is computed only on the average amount of capital "tied up," so that interest of 2 per cent on each turnover would amount to 6 per cent on the actual investment of capital.

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[1] For example, some generally used kinds of machinery (such as lathes, milling or planing machines, engines, or motors) may be transferred from one establishment in one industry to an establishment in another industry, or draft horses may be sold by farmers to merchants.

In the case of the more durable forms of capital the computation is more complicated. Here the entrepreneur has to take into account not only the original expense of the capital good and the amounts which it will add to his annual product, but also its durability, and the fact that a large part of the income which it will earn for him is future income. This future income, as we have seen, will not be valued so highly as the same amount of present income would be.

Suppose, for example, that the entrepreneur is considering the purchase of a machine which will be worn out in ten years, and the price of which is $1000. If he wishes to get 6 per cent interest on his investment (possibly because he has to pay that much for the money funds he uses), he cannot afford to purchase the machine unless it will increase his annual product during those ten years by an account that will sell for at least $136. For $1000 is the present value of an annual payment of $136 for ten years, computed on the basis of an annual interest rate of 6 per cent, compounded annually. If he is satisfied with 5 per cent interest, a probable increase of $130 in the annual value of his product would justify the investment. From this point of view the investment of capital is, so far as the entrepreneur's estimates prove correct, equivalent to the purchase of an annuity for a term of years corresponding to the life of the capital good. Of course, as the capital wears out, its productivity is apt to decrease. Such things, together with any probable changes on the salability of the product, as well as all other contingencies that can be foreseen, have also to be taken into account by the entrepreneur, and still further complicate the problem.

It is obvious that the entrepreneur does not usually make an elaborate mathematical calculation of the kind suggested here. His business experience and knowledge of market conditions afford the basis for a more or lest accurate guess as to the profitableness of a proposed investment of capital. He estimates that a certain machine will ~~or will~~ not "earn its cost" (including interest) because he knows something about the profitableness of the use of similar machines in his own or other establishments. The concrete problem that continually presents itself to the entrepreneur is simply that of getting the maximum of salable product at the minimum cost. An investment in a particular machine is usually judged (except in the case of new undertakings), not by its profitableness as measured by an absolute standard, but, its technical efficiency being known, by its profitableness (as to product and costs) as inferred from the experience of the entrepreneur with his present appliances and methods.

The same considerations hold true for investments in most other kinds of capital goods. Nevertheless, a scientific and accurate analysis of the real profitableness of an investment has to follow the lines that have been indicated above. In fact, in the most scientific forms of investment (such as the purchase and sale of large blocks of corporation bonds by dealers in such securities), the results of elaborate actuarial calculations are utilized. That such calculations are made by those who supply capital rather than by the users of capital, comes from the fact that the supply of capital (so far as it is not furnished by the entrepreneur himself) is under a definite contract on the part of the entrepreneur as to the amount of interest to be paid and as to the time when the principal is to be paid. In many such loans the element of risk to the capitalist is almost entirely eliminated, and the calculation of the present values of such investments becomes accordingly a simple matter of mathematics.

The Expense and Value of Capital. — When we speak of the cost or expense of capital, we may have in mind either one of two distinct things. We may mean the price paid by the entrepreneur for the loan of the money funds which he invests in specific kinds of capital goods, or we may mean the prices paid for the capital goods themselves. The first thing is, of course, loan interest; the second is simply a matter of the market prices of commodities. It is this second thing — the market price of capital goods — that we wish to consider at this point. As commodities, these capital goods come under the general laws of value and price, and most of what has been said in earlier chapters about the valuation of consumption goods holds just as true in respect to the valuation of these production goods. Their price at any given time is apt to be fixed rather close to the point where demand and supply would be in equilibrium. In the long run their values — if they are not patented products, but are competitively produced — cannot get very far away from the expenses of producing them.

But there is one fundamental difference which has been suggested in other connections. Consumption goods are valued because they satisfy human wants, and the intensity of the wants which particular units of goods satisfy have, through the law of marginal utility, a very direct relation to their market values. Capital goods do not satisfy human wants directly; they are valued simply because they aid in the production of goods that do satisfy human wants directly.[1] The demand for them, as we have seen, is the entrepreneurs' interpretation of the demand for their products. The law of diminishing productivity bears about the same relation to the determination of their values that the law of diminishing utility does to the determination of the values of consumption goods. As in the case of the demand for labor, the elasticity of the demand for a particular sort of capital goods is affected not only by the fact that the higher the cost of the capital, the higher will have to be the price of the product, and, consequently, the smaller will be the quantity of the product, that can be sold, but also by the fact that when the cost of any variety of capital goods is relatively high, the entrepreneurs will economize in the use of that particular kind of capital and will use relatively more labor, relatively more land, and relatively more of the other forms of capital. The first of these facts is a corollary of the law of diminishing utility, the second, a corollary of the law of diminishing productivity.

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[1] Here as elsewhere in the present discussion of interest, no account is taken of the obvious fact that many kinds of capital goods are used in the production of other capital goods, rather than in the production of consumption goods directly. There may be in many cases a large number of steps in the productive process before the final goal — the satisfaction of human wants — is reached. A consideration of these facts would only make the analysis more involved, without changing in the slightest degree the conclusions reached. They are, however, taken into account in the discussion of the "social dividend," in Chapter XXV.

This analysis of the value of capital goods relates, however, only to the supply of new capital goods. After capital is once definitely invested in industry, its value is determined solely by its ability to earn an income for its owner. If the entrepreneur has overestimated the technical efficiency of a machine or the salability of its products, that is, if he has overestimated its income-yielding power, he may find that its value is less than the price he held for it. Here, however, we have to note an important distinction between *free capital* and *specialized capital*. By free capital we mean capital that has a number of different possible uses, or that can be transferred from one industry or one establishment to another. Specialized capital is capital that can be used for only one purpose, and that cannot be transferred from one establishment or industry to another.

The capital invested in the construction of a railway roadbed, or in the digging of an irrigation ditch, is absolutely specialized. The roadbed and the irrigation ditch are of use only in connection with the particular transportation or agricultural undertakings for which they were constructed. If the undertakings should fail, the value of these specialized forms of capital would be absolutely wiped out. A manufacturing firm may invest a large amount of money in new models of specially designed machinery. If the new machines prove unsuccessful, their value may sink to what they will sell for as scrap iron. On the other hand, we have free capital in such forms as tools, machines of the standard models that are used in different establishments in the same industry, or even in different industries; raw materials that can be made up into different kinds of finished products and the like. A farmer who stocks his farm with dairy cattle, but finds his land unsuited for a dairy farm, does not incur a total loss on his investment, for he can sell his cattle to some farmer who can make profitable use of them. The distinction here emphasized is only one of degree. We have capital in a considerable variety of forms that are partly free and partly specialized. Such capital is capital that is best adapted to one specific purpose, but which may also be put to other uses. One frequently sees buildings, originally erected for office purposes on a badly chosen site, that have been given over to small manufacturing concerns. A building intended for a factory may serve fairly well as a warehouse.

The importance of these distinctions lies in the fact that the possibility of alternative uses forms a barrier to the depreciation of the value of the free capital that is found to yield less income in some particular use than was expected by the entrepreneur. If such goods can yield a larger income in some other use, they can be transferred (through a change in the nature of the entrepreneur's business or through sale or lease to other entrepreneurs) to this more profitable use. Such transfers are continually taking place in actual business.

Capital and Land. — The analysis of the process by which capital is valued opens the way for a consideration of a problem that has been suggested in earlier pages, — the reason for the economic distinction between capital and land. Some points of similarity are obvious: land and capital are both valued according to their income-yielding power. The selling value of land, like the selling value of capital, is simply the capitalization of the prospective income to be derived from it. From the point of view of the individual investor the purchase of land for productive purposes is an investment of capital just as truly as is the purchase of capital goods.

Yet there are equally obvious differences: land is given by nature; capital is "man-made." The amount of land is limited — a statement that holds true whether we have in mind the land actually available for productive uses under existing conditions, or whether we have in mind the whole surface of the earth. The supply of capital, on the other hand, is capable of indefinite extension. It may be said, of course, that an extension of transportation facilities, by which the available supply of land is increased, is a "production of land." This is, however, only a figurative use of the word "production." In this figurative sense the growth of a city, by which barren areas become desirable building lots or factory sites, is likewise a "production of land." The recent opening up of the Canadian Northwest has been due to the production of capital in the form of railroads. The land was already there, but the necessary form of capital was lacking. Another distinction is found in the fact that land, in its most essential qualities, is a permanent thing, while capital is of all possible degrees of durability.

These obvious physical differences between land and capital would hardly justify us in drawing a line between them in a discussion of the distribution of wealth unless these physical differences were the causes of differences in the ways in which the incomes from land and capital are determined — differences, that is, between rent and interest. Here, again, we find points of similiarity and points of difference. The points of likeness become prominent when we view the mechanism of wealth production as it exists at any given time, but become less significant as we shift our view to the forces at work through a considerable period of time.

If, for example, we could take something like an instantaneous photograph of the processes of the production and distribution of wealth, we would see no important differences between the capital and the land used in production. We would see that society is equipped with a stock of capital goods, in all stages of wear, of all possible degrees of technical efficiency, and varying greatly in fitness or adaptability to the work of producing the particular products that consumers are demanding. Not all of these capital goods are yielding an income that is sufficient to provide for their replacement as they wear out, and in addition to pay a surplus, or premium, in the term of interest. Some, it is true, may be yielding even more than the amount necessary for these purposes. Machinery of new and exceptionally efficient sorts, but not as yet of widespread or general use; raw materials or dealers' stocks of goods that, by reason of a sudden increase in demand, are selling at an exceptionally high price, — such capital goods may be earning considerably more than interest and replacement.

On the other hand, we see a large amount of capital in such forms as obsolete kinds of machines, ill-planned factory buildings, raw materials or dealers' stocks in trade that were bought in expectation of a demand that did not materialize. Such capital goods may earn considerably *less* than interest and replacement. When capital is once *fixed* in definite forms, the question of the original money cost of the capital does not enter into the question of the profitableness of using it. An entrepreneur who borrows money to invest in capital goods has to repay the interest and ultimately the principal of the loan, whether this particular investment of capital proves sufficiently remunerative or not. In accounting practice such expenses are called "fixed charges," because they go on whether the capital is used profitably or not. In fact, the entrepreneur will find it to his advantage to use the capital, rather than to let it lie idle, so long as its use adds anything to his total net income. A machine may thus be worth using, even if not worth replacing; dealers can better afford to sell their goods for less than they paid for them than not to sell them at all; a landlord will prefer to rent a building at a very low cost, rather than to let it remain vacant. Capital goods that are just barely worth using may be called "marginal capital goods," and are, from our present viewpoint, analogous to marginal land. At any given time, then, the existing capital goods which it does not pay to use may be thought of as "below the margin," while the income yielded by the better capital goods may be thought of as a rent of capital, analogous in many ways to the rent of land. For this reason Professor Marshall has called the income from capital goods, when the point of view takes into account only a short period of time, *quasi-rent.*

When, however, we shift our point of view so as to take into account a longer period of time, we see an important difference between the income from land and the income from capital. We see, then, that society's stock of capital is a shifting thing. On the one hand, it is being continually depleted on account of the fact that, in the process of production, capital goods are being used up, worn out, or because they are in some cases passing for other reasons below the margin of profitable use. On the other hand, the stock of capital is being continually replenished by the investment of savings in new forms of capital goods. Most of these investments merely replace capital that has been worn out or used up, but some, and in a progressive society, a considerable proportion, represent the creation of new forms of capital.

Now, as we have seen, the investment of savings in capital goods is guided by the estimates that entrepreneurs make of the profitableness of these investments, the criterion of the profitableness of any possible investment being its ability to replace the principal and provide for the interest on the money invested. When experience has shown that particular forms of capital will not measure up to this standard of profitableness, these forms will not be replaced as they wear out. When certain forms of capital enable entrepreneurs to get any considerable surplus over and above interest and replacement, the tendency will be, so far as competition rules (that is, so far as monopoly, as in the case of patented machinery, does not prevent), to increase the investments in these forms of capital, and in this way to force the earnings of these specially advantageous forms of capital down to the common level of interest and replacement. Just as the expense of producing consumption goods forms a "normal value," to which their actual prices (under competitive condition) continually tend to approximate, so the expenses incurred in investments of capital form a "normal remuneration of capital," toward which its actual earnings continually tend. Similarly, the value of capital, although actually determined at any one time, like the value of land, by its ability to earn an income for its possessor, tends in the long run to approximate the expense of producing capital. This expense includes, it must be remembered, both the actual money cost of new capital goods and the expense of interest on this money cost. *Normal interest is the interest on absolutely free capital in the form of loanable funds.*

Land, of course, has no normal value, because it has no cost of production. This difference is not of mere theoretical importance, but has an important bearing upon many social problems. For example, when we take a long period of time into account, no such thing as an "unearned increment" appears in the value of capital. Moreover, while both rent and interest are alike in the sense that they are payments for productive services, interest is more clearly an earned income than is rent. For productivity has to be imputed to capital because its supply is limited on account of its expenses of production and on account of the sacrifices involved in waiting, while productivity is imputed to the better lands simply because the supply of them is limited by nature. When we measure rent as a return per acre (or other unit) of land, and interest as a percentage on the money invested, we recognize this fundamental distinction between rent and interest. That rent may be viewed for some purposes as interest on the value of the land, and that interest (and replacement) may similarly be viewed (at any given time) as a "quasi-rent" of capital goods, does not alter the fundamental nature of the distinction.

We have seen in another connection that the shifting of investment by which the earnings of capital are made to tend toward a normal standard is easier in the case of the more transient forms of capital than in the case of the more durable forms. The more durable a capital good the more nearly is the income derived from it analogous to the rent of land. As was suggested in the discussion of rent, it is not necessary or advisable to draw a hard and fast line between capital and land. Permanent investments of capital in the form of improvements to land may very properly be regarded as land. The farmer who is contemplating installing a drainage system or an irrigation system for his land views such an investment, at the time, as an investment of capital. But when the capital is definitely incorporated with the land in these permanent forms, there is no reason why it should be called capital rather than land. The total income yielded by the improved acres will, in all essential particulars, be land rent.

Capital and Consumption Goods. — There are also some points of likeness between capital and the more durable forms of consumption goods. The person who buys a piano is not only satisfying his present wants, but expects to get from it a long period of use, extending into the future. The purchase of any durable consumption good is in this way one form of saving for the future. Moreover, such provisions for future wants will not be made unless we feel that these future wants are important enough to justify us in giving up some possible present satisfaction. In other words, we will not substitute future utilities for present utilities by the purchase of durable consumption goods unless the future utilities are enough greater than the present utilities to compensate us for the necessary waiting. This compensation for the difference between present satisfactions and future satisfactions is obviously analogous to interest.

These facts must be taken into account in any full analysis of the valuation of consumption goods, but they do not justify us in obliterating the line between capital and consumption goods. Consumption goods yield directly an income of satisfactions; capital yields a money income, but only in an indirect way does it yield an income of satisfactions. A rented house is not, from the social point of view, capital. It yields a direct income of satisfactions to its occupant; the fact that the landlord sells the annual use of it instead of selling the permanent property rights in it is a fact of minor significance.

A merchant's stock in trade is capital because it will yield a money income to its possessor;[1] when sold to consumers, the same goods become consumption goods because they yield an income of satisfactions. In short, the distinction between capital and consumption goods is based upon one of the most fundamental things in the existing economic system — the fact that the income which men receive for the productive services of their capital are money incomes.

Capital and Wages. — In many undertakings wages are paid to workmen engaged in the production of goods before the goods are sold. A farmer, for example, has to pay his harvest hands and other workmen before he receives any money from the sale of his wheat. Whether he borrows the amount needed for wages, or whether he pays them out of his own savings, interest on the amount advanced has to be counted among the expenses of production, and the wages advanced are, for the time being, an investment of capital. In most manufacturing establishments a more or less lengthy average period of time elapses between work actually done by the workmen and the sale of the products of their work. In such establishments a considerable amount of capital is invested in wage advances. This does not mean that we are to consider the laborers as being in any sense capital. For the gradual process by which the raw material becomes the finished product is itself a continuous investment of capital. All of the various expenses of production are really different ways of investing money in capital goods. Add to the cost of the raw material all of the expenses (including wages and payments of rent and interest as well) incurred in order to produce the finished product of the establishment, and you have simply the total investment in capital goods in the form of the finished product. A complete inventory of capital goods would include then (in addition to buildings, machinery, etc.) not only raw materials and the finished products that are ready for sale to consumers, but also the products on hand at any one time in a partly finished state. Thus, though the payment of wages is often an investment of capital, it must be remembered that the payment of wages is only one of the ways in which money is invested in concrete, definite, capital goods.

The Rate of Interest. — Interest, as the price paid for the services of capital, is determined by the supply and demand of capital. By this we mean, not the supply and demand of concrete capital goods, — a matter which comes under the general laws of price,[2] — but the supply and demand of the loanable funds, the money capital which is available for investment in concrete capital goods.

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[1] The relation of goods to their possessors, rather than to their owners, gives the more satisfactory basis for the distinction between capital goods and consumption goods. The example of the rented house makes this clear.

[2] See discussion of the expense and value of capital on page 428.

The demand for capital, as we have seen, is based ultimately on the demand for the products of capital; that is, on the demand for consumption goods. The entrepreneur bases his demand for capital upon his estimate of the demand for his products, together with his estimate of the relative economy of the use of different amounts of capital. In combining labor, capital, and land for productive purposes, he will be guided consciously or unconsciously by the law of diminishing productivity. He has to take into account in this connection both the technical efficiency (that is, the real productive efficiency) and the expense of land, labor, and different kinds of capital. This latter consideration means that the interest rate is itself one of the factors determining the demand for capital. The higher the rate of interest, the greater will be the expenses of production, and the smaller, in general, will be the demand for those goods, in the production of which the use of capital plays an especially important part. Moreover, the higher the interest rate, the smaller, other things being equal, will be the relative proportions of capital, and the larger will be the relative proportions of labor and land which it will pay entrepreneurs to use.

As the technical efficiency of capital is increased through the progress of science and invention, the more profitable does its use become. For the demand for it increases not only because the consequent reduction in the prices of goods means larger sales, but also because the use of larger proportions of capital in production becomes advisable. The entrepreneur wants simply the maximum productive efficiency at the least cost. A unit of productive efficiency in the form of capital becomes cheaper, first, as the interest rate decreases, and second, as a given outlay will purchase more efficient forms of capital goods.

The supply of capital depends ultimately upon the supply of waiting. This, as we have seen in the discussion of the necessity of interest, is something which varies with the interest rate. Other things being equal, the higher the interest rate, the larger will be the parts of money incomes that will be saved rather than spent immediately in the satisfaction of wants. It has sometimes been said that saving increases as wealth increases. If this is taken to mean that the larger the income of the individual, the larger, other things being equal, will be the amount he will save, the statement probably expresses a general truth. The larger the income, the less important are the immediate wants dependent for their satisfaction on a given *amount* of money. It does not follow that the *proportion* of the income that is saved is apt to be any larger in the case of a large income than a small income. If, on the other hand, the statement is taken to refer to the increase of wealth in society at large, we have to take account of the fact that as wealth increases new wants develop, and the net effect on saving is apt to depend on the character of the new wants, — whether they call for increased current expenditures or whether they involve the accumulation of considerable sums. Convenient opportunities for saving, such as those afforded by savings banks, insurance companies, and the supply of convenient forms of investment securities have (apart from the rate of interest they offer) an important effect upon the amount of saving.

Gross Interest and Net Interest. — Net interest is pure interest — the amount actually necessary to recompense marginal waiting. Gross interest — the interest actually paid on loans — includes payments for other things. In the first place, actual interest often includes some payment for the supervision which the capitalist has to maintain over his investment. Even the man who "lives on his income" usually has to devote a certain amount of time to the investigation of the safety of different possible investments, to the collection of interest and principal and similar things. The net earnings of a savings bank — the difference between the interest they get on their investments and the interest they pay their depositors — are partly a payment for this element of supervision.

A second element in gross interest is the payment for the risk the lender undergoes of losing all or part of his expected income (including principal and interest). This does not mean, as some writers have said, that the interest rate contains an element of insurance, for insurance means the elimination of individual risk through the combination of risks. The fact is simply that, as every one knows, lenders will not take greater risks without the prospect of greater gains. There is some element of speculation in all loans but the very safest, and the extra income received on the more legitimate loans is more akin to speculative profits than to insurance.

Usury Laws. — Interest is one form of price in regard to which society still expresses some distrust of the operation of unhindered competitive forces. Only nine American states do not provide a legal maximum above which the interest rate cannot legally be fixed. Such laws are based on the justifiable assumption that the borrower is in many cases the weaker bargainer, pressed often by that necessity which "never drove a good bargain." In many cases the laws are not enforced, but in other cases they do have an important effect on some kinds of loans, especially bank loans in the rural districts, — farm mortgages and overdue book credits. It is to be feared, however, that their result is often not so much to lower the rate of interest as to cut off many loans which lenders would not be justified in making except at high rates of interest. In the case of many loans on fairly good security, however, usury laws have probably operated to the advantage of the borrowers.

QUESTIONS AND EXERCISES

1. Could a socialist state dispense with interest? with waiting?
2. How has the rate of interest been affected by the opening up of new and fertile lands?
3. Use supply and demand curves to illustrate the determination of the rate of interest.

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CHAPTER XXV

PROFITS

THE difference between the total money income which an entrepreneur receives and his expenses of production constitutes his profits. Profits, then, are a surplus over and above the expenses of production. There are two ways of measuring profits: first, with reference to some unit of time, such as a year; and, second, with reference to particular units of product. Thus, when a manufacturer speaks of his profits during a year, he has in mind the difference between his total expenditures and total receipts for that year. But when he speaks of his profits on a particular sale, he has in mind the difference between the expense of producing the particular goods sold and the prices received for them. The two ways of measuring profits are not alike, because a large part of the expenses incurred by an entrepreneur in any given year may be payments for work done in connection with the production of goods that will not be marketed until some later time. In the long run, however, the amount of annual profits will be determined by the profits on particular transactions or on particular products, so that for present purposes it is not necessary to press the distinction any farther. It is sometimes more convenient to use the word "profits" in one sense, and sometimes in the other sense.

Profits, being a surplus, do not constitute a homogeneous income determined by any one principle or set of principles. They are the resultant of all the forces that tend to bring about inequalities between the prices paid for things and the expenses of producing them. It is not possible in a brief analysis even to attempt to break up this mixed form of income into all of its constituent parts. Attention may be called, however, to some of the more important and obvious elements in profits. These are: entrepreneurs' wages, speculative gains, chance gains, and gains of bargaining.

Entrepreneur's Wage. — This element in profits is sometimes called the "wages of management," and constitutes the payment received by the entrepreneur for his services as manager or supervisor of his business. It is not easy to draw a line between this element in profits and wages. In fact, "entrepreneur's wage" could be discussed just as appropriately under the general head of wages as in connection with the general subject of profits. The only distinguishing things about this particular kind of wages are that, unless the entrepreneur adopts the bookkeeping form of paying wages to himself, they come out of the general surplus or residuum commonly called profits in actual business, and that they are the wages paid for a particular kind of labor. The average American farmer usually does a certain amount of work himself that might be done by hired laborers, and so far as his income represents the amount he saves by doing such work himself, it is to be regarded as ordinary wages. But in addition, he does other work of a more purely managerial quality, including the general direction of the time and methods of tillage and harvesting, the organization of the working force; in fact, the determination of what may be succinctly described as the general coördination of labor, capital, and land. The reader may ask: Could not this part of the work be turned over to a salaried foreman? Certainly, and in some cases, as on the estates of so-called "gentlemen farmers," all of it. In fact, the amount of the managerial work actually done by the entrepreneur himself in any kind of undertaking is a variable quantity, depending upon the extent to which managerial authority is delegated to foremen, superintendents, and salaried managers. In any case the "wages of management" exist, although they do not always exist as "entrepreneur's wage," nor do they always constitute a part of profits.

Even in cases where the entrepreneur is in all respects his own manager (which is, after all, the most frequent case in a host of small business undertakings), the entrepreneur's wage constitutes a kind of *minimum profits*, and may very properly be added to the real expenses of production. Minimum profits are necessary profits, the profits needed to induce the entrepreneur to continue his productive work. In many cases they can be measured roughly by the salary which the entrepreneur could get by working for some one else. Some men would prefer to be their own masters even at a smaller income, while others would shrink from the responsibilities of independent business life, even if a larger income were attached to it, so this method of measuring minimum profits is only approximate.

Minimum profits will vary with managerial efficiency. The more efficient farmer will get a larger product with a given equipment of land, labor, and capital than will the less efficient farmer.[1] So will the more efficient manufacturer. Managerial efficiency really means productive efficiency, and differences in managerial efficiency will cause corresponding differences in minimum profits.

Speculative Gains. — Modern business, based as it is on exchange, economy, and production "for the market," is of necessity speculative in character, and the entrepreneur is of necessity a speculator. A speculator is a man who buys things in the hope of selling them later at a higher price, or who sells things which he does not own, hoping to buy them at a lower price. The entrepreneur buys labor, capital, and land, and uses them in the production of things which he hopes to sell for more than the expenses of production. The farmer who decides to devote more land to certain crops and less land to other crops than he did in the preceding year is guided mainly by his estimate of the prices which the different crops will sell for. The merchant purchases his stock according to the best estimates he can make of the kind of goods he will find customers for. Even when goods are sold before they are produced, as when a contracter agrees to build a house for a certain price, the entrepreneur still runs the risk that his expenses of production will be greater than the price agreed upon. If he attempts to eliminate the element of uncertainty by contracting for his materials in advance, he simply shifts some of the risk to lumber dealers, hardware merchants, etc., while he himself still assumes some risk, although of a different kind. That is, he guards himself against possible loss, but by the same process he gives up the chance of the higher profits he would have got for himself if the prices of materials had been lower at the actual time of construction than they were when he made the contract.

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[1] It has been suggested that the difference between the product of the better farmers and of the poorer farmers is not only absolutely but relatively greater in the case of good land than in the case of poor lands. If this is so, it helps to explain the observed fact that the best farmers generally have the best lands. That is, they would be able to pay a higher rent or a higher price for the good lands than the poor farmers could. In this case some of the higher efficiency of the better farmers might result in higher rents rather than higher profits. (See Taylor, *Agricultural Economics*, Chap. IX.)

This element of risk taking is the very essence of modern business, and the most successful entrepreneurs are, in general, those who are the most successful risk takers. Risk taking, in this sense, does not mean a blind dependence upon chance. If this were so, there would be no reason why business failure should not be about as common as business success. Risk taking is nearly synonymous with business enterprise. It involves careful estimates of the amounts of product that can be got from different combinations of labor, capital, and land, and equally careful estimates of the salability of such products. It is in this latter field, which involves the diagnosis of market conditions with a view to ascertaining their probable trend, that the entrepreneur's skill finds its chief opportunity. This kind of skill means knowledge and foresight — very different things from mere willingness to "take a chance." Yet, though the efficient entrepreneur deals with probabilities rather than possibilities in his estimates, he is nevertheless a risk taker, a speculator, for his estimates have to do with market conditions that are beyond his personal control. While his success may be probable, it is very far from being certain.

The functions of the entrepreneur as a risk taker are clearly distinguishable from his functions as a manager. Managerial efficiency, as we have seen, is the ability to combine and direct labor, capital, and land in such a way as to get the maximum product. Risk-taking efficiency means the ability to get the largest receipts from a given expenditure. When we speak of managerial efficiency, we have especially in mind the technical side of production — the manner in which the factors in production are utilized; risk-taking efficiency refers to the value side of production — the way in which the use of capital, labor, and land is directed into the most remunerative channels. Managerial duties may be delegated to salaried employees; the risk-taking function is one which the entrepreneur cannot shift to another.[1]

This part of competitive profits is in its very nature a shifting and even transient thing. To anticipate consumers' demands correctly is not in itself a guarantee of profits to any entrepreneur. If other entrepreneurs have counted on the same demand, it may easily happen that the total product cannot be sold at a profitable price. In fact, the "market conditions" which the entrepreneur has to forecast include the conditions of supply as well as of demand. But even in case a given entrepreneur has succeeded in producing the precise things that consumers are demanding and that other entrepreneurs are not producing, and has thus been able to get large profits, he cannot count on their permanence. Demand may change, but even if demand remains constant or increases, his large profits will be a standing invitation to other entrepreneurs to enter the same field — a condition which will continue until competition forces the profits of this particular kind of business down to where they just suffice to pay the wages of management. If profits in any establishment or any industry go below this minimum point, the tendency will be for entrepreneurs to shift their investments to more profitable undertakings.

The kind of profits which we are now discussing constitute the guiding principle, the incentive, in modern economic life. It is the desire to get money profits that leads entrepreneurs to produce particular things and to produce them in particular ways. It is for this reason that old channels of productive effort are continually being abandoned and that the use of labor, capital, and land is continually being guided into new channels. The shifting of productive effort which the pursuit of money profits involves consists, for the most part, of efforts on the part of entrepreneurs to meet the shifting wants of consumers.

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[1] This statement may seem open to the qualification implied in the fact that in some cases the foresight and skill utilized are those of employees (the "buyers" for a large retail store, for example). Yet while the entrepreneur may thus depend in part upon others' knowledge of market conditions, the *risk* involved is necessarily assumed by himself.

One of the strongest arguments for the superiority of the competitive system over any possible substitute for it lies in the fact that, under competition, the guiding of production into the channels indicated by the search for money profits will result in the maximum satisfaction of human wants. This follows from the fact that the prices people are willing to pay for certain commodities measure the importance which they attach to the possession of those commodities. The shifting of labor and capital from less profitable to more profitable uses means, in general, that more intense wants will be satisfied with the same expenditure of productive energy. All this is implied in the statement made above that the shifting of productive effort is mainly in response to the shifting wants of consumers. This argument, that under free competition the pursuit of money profits leads to the best adaptation of productive efforts to the satisfaction of the wants of consumers, is one that has rarely been met squarely by those who attack the competitive system. There are, however, several important considerations that lessen to some extent its force.

In the first place, the extent to which the wants of any individual affect the ordering of the productive processes depends upon his purchasing power, that is, primarily, upon his income. It is manifestly absurd to say that the shifting of labor and capital from the production of necessities for the poor to the production of luxuries for the rich, simply because it may be more profitable, necessarily means a better satisfaction of human wants. The extent to which wants are satisfied depends on the way wealth is distributed as well as upon the amount and kinds of things produced.

Moreover, even granting that the stimulus of money profits leads to the best practicable satisfaction of the wants of present consumers, this may sometimes be achieved by imposing added difficulties in want-satisfaction on future generations. The lines of procedure that will bring maximum profits to entrepreneurs sometimes run counter to the more permanent interests of society. We all recognize, for example, that there may be such a thing as a too rapid exploitation of natural resources. The history of timber lands in America furnishes an instructive example.

A still more important qualification of the statement that competitive profit seeking works for the best interests of society, viewed as a body of consumers, is found in the fact that when we begin to speak of the interests of society, we introduce, of necessity, the ethical point of view. This means that we must consider not only the *quantity*, but also the *quality* of want-satisfactions. For purposes of the economic analysis of market forces, we make no distinction between different kinds of utilities, but it is impossible to discuss social well-being without taking into account the fact that from the point of view of the interests of society some kinds of " utilities " are good and some are bad, and that even the better kinds of want-satisfactions vary greatly in their importance, when measured by any criterion of social welfare. The production of socially undesirable things, such as intoxicating liquors, adulterated foods, ill-ventilated tenements, etc., is often prohibited, while, on the other hand, society has found that certain socially desirable things, such as schools, parks, libraries, clean streets, etc., will not be supplied at all, or will not be supplied in sufficient quantities by private business enterprise. All indications point to a very considerable extension of organized social activity at precisely those points where the private pursuit of money profits has proven itself inadequate.

Chance Gains. — It often happens that an entrepreneur is able to get profits on account of some unforeseen and purely fortuitous circumstances. Such profits should not be confused with the kind that have just been discussed, which vary with the foresight and enterprise of the entrepreneur. Capricious changes in fashion often bring temporarily high profits to dealers who happen to have the right kinds of goods in stock, or to manufacturers who happen to have the equipment needed to produce the right kinds of goods. American farmers have profited at different times by the failure of the European grain crop. Other examples will suggest themselves to the reader. There are chance losses as well as chance gains, and they are probably quite as numerous and important. Chance gains, therefore, do not constitute any important part of the income going to entrepreneurs as a class, but they are often a considerable element in the profits of particular entrepreneurs.

Gains of Bargaining. — We have seen in other connections that the prices of commodities and services are in many cases fixed only loosely by the forces of supply and demand. In the actual process of bargaining, the shrewder party to the bargain may very often sell for more than his minimum selling price, or buy for less than his maximum buying price. Skillful bargaining swells the entrepreneur's profits, first, by increasing the prices he gets for things, and second, by decreasing his expenses of production. We have seen that in bargaining with an individual laborer the entrepreneur usually has an advantage that tends to increase profits at the expense of wages — an advantage which is at least partly lost when the laborers resort to collective bargaining. In bargaining for the use of capital funds, the entrepreneur is apt to know what the loan is worth to him better than the lender does; but, on the other hand, it often happens that the entrepreneur is put at a disadvantage when the loan is a matter of necessity to him, but relatively a matter of indifference to the lender.

Non-competitive Profits. — All of the sources of profits mentioned above are based on circumstances which arise in the course of ordinary competitive business. In any particular case their magnitude depends on the managing ability, foresight, bargaining skill, or good fortune of the entrepreneur. Moreover, of the tendency of competition to eliminate all but minimum profits, the continuance of surplus profits is only achieved, in general, by continued endeavor on the part of the entrepreneur. In the case of monopoly, however, the existence of profits rests upon a very different ground — the ability of the monopolist to control the supply. This results normally, as we have seen, in a fixing of monopoly price at the point that will yield the largest net profits. Monopoly profits are not only apt to be higher than competitive profits, but they are also apt to be more stable and permanent in character.

It very often happens in non-monopolistic undertakings that the entrepreneur who has developed his business to a profitable point is able to attach some degree of permanency to his profits. A merchant often relies to a very large extent upon the patronage of an established clientele of customers, and in turn he may prefer, other things being equal, to purchase his goods from particular wholesale houses. When a business undertaking is sold as a whole, its established connections of this sort enter into the determination of the price paid for it, under the head of "good-will." This "good-will" element is generally measured by the difference between the valuation of a business establishment and the valuation of the specific assets (minus the specific liabilities) of the business. In the sale of a newspaper it often happens that the "good-will" of the enterprise (its established advertising and subscription patronage) is the only thing actually transferred by one entrepreneur to the other. Those more or less definitely established kinds of profits which give rise to "good-will" values must not be confused with monopoly profits. Monopoly implies the absence of competition. "Good-will" profits are to be attributed rather to the imperfect working of competition, to the economic inertia and friction which result from the fact that buyers are guided to a very large extent by custom and habit rather than by conscious choice. Moreover, in many small transactions, for customers to attempt to buy always at the lowest price would result in a waste of time and energy disproportionate to the gain. Hence, aside from the influence of custom and habit, there may often be rational ground for the continued patronage of particular establishments which customers have found to be trustworthy.

"Good-will" is, in general, of most importance in retail establishments, where annual profits are apt to be made up of the specific profits on a large number of relatively small transactions. In the larger transactions of wholesale, jobbing, and manufacturing establishments, the element of "good-will" is not entirely absent, but the vigilance of expert buyers and the mere size of the ordinary transaction (making even small differences in prices important) tend to reduce it to a minimum. A noteworthy feature of modern business, however, is the attempt on the part of manufacturers and wholesalers to influence the demand of the ultimate consumers of their products through the use of advertising. The trade-mark privilege, which enables particular brands of competitively produced goods to be distinguished, is an important factor in the efforts of such producers to gain and hold the patronage of the ultimate consumers. The "good-will" of a large manufacturing establishment thus comes to be in some cases as valuable a possession as a monopoly franchise. Farmers, and other producers of standard kinds and classes of goods, have small opportunity to acquire "good-will" profits.

The Social Dividend. — The significance of the statement made in an earlier chapter, that the distribution of wealth is a matter of valuation, should now be clear to the reader. But since the detailed character of the analysis may make a broad and inclusive view of this valuation process somewhat difficult, it will be worth our while to bring together the more important conclusions we have reached, and to try to see them from a somewhat different point of view.

The *social dividend* is made up of the scarce and valuable things (commodities and services) that are of direct use in the satisfaction of human wants. The process by which the claims of different individuals against the social dividend are adjudicated is the process of the distribution of wealth. We have seen that these claims rest upon various grounds. Some men give of
1 their own time and energy to the production of goods. Others permit the
2 use of the scarce and valuable natural agents (especially land) which they
own. Still others exchange part of their present claims against the social
3 dividend for future claims, thereby permitting part of the productive work
of society to be turned toward the creation of indirect goods, the use of which operates, in the long run, to greatly increase the social dividend.

A unifying characteristic of these three different kinds of claims is the fact that the wages of labor, the rent of land, and the interest on capital are simply different forms of money income, paid for the services of land, labor, and capital in the production of valuable things. The valuations which society puts on the productive services of its members or of their productive goods are determined through the activities of entrepreneurs.

The relation of the activities of entrepreneurs to the money incomes of the
members of society is twofold. On the one hand, the purchasing power of
1. consumers is derived from their money incomes, which in this way constitute
the means by which the demand for the entrepreneur's products expresses
itself. On the other hand, the money incomes received by laborers and by
2 those who supply capital and land are paid by entrepreneurs in return for pro-
ductive services. The wages, rent, and interest expended by any one entrepreneur for these productive services are in turn paid over by the individuals who receive them to other entrepreneurs in return for their products. There

is thus a continuous flow of money income through the hands of entrepreneurs, appearing first in the form of the prices that are paid for an entrepreneur's goods, then emerging in the form of the rent, wages, and interest that the entrepreneur pays for the service of the factors in production, then reappearing in the prices paid for other goods, and so on in a continually recurring cycle of income and outgo.[1]

This process is made more complicated, however, by the fact that not all of the entrepreneur's expenses appear directly as rent, wages, or interest. A considerable part, and in many cases (as in mercantile establishments), the largest part of such expenditures are for various concrete forms of capital, — raw materials, dealers' stocks of goods, machines, and the like. Here a part of the money income received by the entrepreneur in the form of the prices paid for his own goods emerges in the prices which he pays for the goods sold by other entrepreneurs, and which, in turn, make up a part of their money incomes. But this other class of entrepreneurs — who supply capital goods rather than consumption goods — are subject to the same necessity of expending their money incomes in the payment of wages, rent, and interest, and in the purchase of different kinds of capital goods. To push the analysis still further would obviously lead us only into needless repetition. One important fact, however, appears clearly: If we could trace the expense of producing any consumption good back through all the long series of services and of production goods that have contributed to its making we would find that this expense reduces itself, ultimately, to rent, wages, and interest, not counting what remains in the entrepreneur's hands as profits. Part of the "flow of money income" passes through the hands of a chain of entrepreneurs, but it nevertheless originates in the prices that consumers pay for the things that satisfy their wants and emerges in the form of the payments made for the productive services of land, labor, and capital.

Yet another correction must be made, however, to fit this picture of part of the economic process more closely to the facts. The money which consumers pay for particular commodities does not usually constitute the actual fund with which the entrepreneur pays for the labor, the land, and the capital goods used in the production of those commodities. Still less does it constitute the actual fund from which the entrepreneurs who supply the necessary capital goods pay their expenses, or from which the expenses of still more remote stages in the process of production are paid. The roundabout, indirect methods which characterize modern production, and which involve the division of the productive process among countless different undertakings, take time. The goods which consumers buy to-day are the result of a long series of productive efforts extending back indefinitely into the past. Similarly the productive efforts of to-day avail but relatively little toward the satisfaction of present wants, for they are in large part directed to forwarding, often in the most indirect ways, the production of things that will come to a final fruition in the satisfaction of human wants only in the more or less remote future.

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[1] To a very large extent, this "flow of money income" does not take the form of the actual circulation of concrete forms of money. For the most part it takes place through the creation and cancellation of credit obligations.

Viewed in this way the *annual product* of society is something very different from the social dividend. The year's work is begun with an equipment of economic goods of all kinds, — finished goods in the hands of dealers and manufacturers, goods in all stages of completion, growing crops, factory and mercantile buildings, machines, and all the auxiliary apparatus of production in a finished or unfinished state. The annual product includes all the additions made to this stock of goods, and all that is accomplished in forwarding such goods as are destined for human consumption towards the form, place, and time in which and at which they are wanted. It includes all that is done in a similar way to forward, replenish, and increase the stock of production goods. It includes also all the personal services that command a money payment which are not embodied in concrete goods, but which confer their benefits in the very instance of their performance.

But while the productive efforts of society are thus constantly building up and modifying the stock of economic goods, this stock is continually being depleted in various ways. The instruments of production are constantly wearing out, or are being cast aside on account of the introduction of either more efficient appliances or more efficient methods which utilize other kinds of appliances. Then, too, as the final outcome of this productive process there is a constant stream of finished consumption goods passing into the hands of consumers. The social dividend consists of this flow of consumption goods, together with those direct personal services which do not have to do directly or indirectly with the fitting of *goods* for human consumption, but which nevertheless satisfy wants and command a money payment. While the social dividend is to a large extent the outcome of past work and effort, the annual product is very largely a provision for future wants.

What is the effect of all these considerations upon our analysis of the flow of money income? It still remains true that the money which consumers pay to entrepreneurs is in turn used by them in the payment of their expenses of production, and that the money which they in turn pay to other entrepreneurs for various forms of capital goods are used in the payment of expenses of production. But the prices consumers are paying are for goods, the expenses of producing which have (at least in greater part) already been paid, and some of them (such as the prices paid for some kinds of capital instruments) may have been paid some considerable period of time back in the past. If in turn we should trace back the expenses of producing the capital goods used in producing these consumption goods our search would lead us into the more remote past, while still further analysis of the expenses of production would discover an increasing number of ramifications running back into the still more distant past. The present flow of money income, originating in the prices paid by consumers, passes, as we have seen, through the hands of a chain of entrepreneurs and in this process gets ultimately into the hands of laborers, capitalists, and landlords. But most of the productive services which are thus remunerated are services which will avail toward the satisfaction of future rather than of present wants. In other words, the prices paid for consumers' shares in the *social dividend* constitute (save for an important exception to be noted presently) the fund which pays for the *annual product*. The productive efforts of the past, which satisfy the wants of to-day, were paid for out of past income, while the present work of producing goods that will be ripe for consumption only in the future is paid for out of present income. In this fact lies the explanation of the nature and necessity of one of the various kinds of claims against the social dividend — interest.

The outlays which entrepreneurs make in producing goods, so far as they are paid before they receive an income from the sale of the goods, are commonly called investments of capital. Not only, as we have seen, does the entrepreneur invest capital in production goods such as machines and buildings, but his purchases of raw materials, his advances of wages to laborers, the interest which he pays on borrowed capital, and the rent or the purchase price which he pays for land, are usually investments of capital. No such investments can be regarded as remunerative unless the entrepreneur gets in the selling prices of his products enough to provide interest upon such outlays as well as to cover the outlays themselves. These facts were noted in connection with the discussion of interest in an earlier chapter, but there, for simplicity's sake, the analysis was confined to the capital expenditures of the individual entrepreneur. The full significance of the rôle which capital plays in production does not appear until we view the activities of the individual entrepreneur as only a link in the continuous chain of activities that make up the productive process.

The point of special significance in this connection is the fact that the finished products sold by some entrepreneurs constitute the capital goods (raw materials, productive appliances, etc.) bought by other entrepreneurs. When one entrepreneur sells his products to another entrepreneur his period of "waiting" is completed, so far as his advances of capital funds in the production of these particular units of goods are concerned. But the "waiting" is only transferred to the other entrepreneur, who adds further expenditures of capital and, in turn, gets his remuneration from the sale of his product. The important conclusion to which this analysis leads is that (so far as the entrepreneurs have been accurate in their estimates) the prices which consumers are paying to-day for finished goods cover not only all the actual money expenditures which have been made in the past in the production of these goods, but also the interest on all such expenditures from the time they were made up to the time of the sale of the finished goods to the ultimate consumer.

Similarly the expenditures made by entrepreneurs to-day in the production of goods that will directly or indirectly satisfy future wants will (so far as these entrepreneurs and those who will control the remaining steps in the productive process are accurate in their estimates) be covered, together with accrued interest, by the prices which consumers will pay in the future. Present wants are satisfied by means of the productive efforts of the past. These productive efforts were paid for out of past income, but the outlays were made in the expectation that present prices would suffice to repay them, with interest. A particular entrepreneur may be interested only in disposing of his products at remunerative prices to the entrepreneurs who stand next to him in the productive series, but this does not alter the essential nature of capital investment, which, from the social point of view, is a cumulative process.

The flow of money income which originates in the prices consumers pay to the entrepreneurs with whom they deal emerges in the form of capital expenditures, and so far as these take the form of the purchase of capital goods they constitute the fund from which other capital expenditures are made by other entrepreneurs. The gross money income of entrepreneurs, then, furnishes by far the most important part of the current supply of capital funds, and the most important form of capital investment is the entrepreneur's customary practice of "putting money back into the business." That this way of investing capital is customary, even habitual, does not mean that the amount as well as the particular forms of such investments is not a matter subject to the discretion of the entrepreneur. So far as the entrepreneur is not hampered by contracts (with customers, other entrepreneurs, money lenders, landlords, or laborers) he is free to do as he pleases with his income. As a matter of fact he is apt to devote a fairly constant proportion of it to the replacement of the capital goods that are being used up or worn out and to the other necessary expenses of continued production.

It rarely happens, however, in any undertaking, that income and expenditure are so nicely adjusted and so evenly distributed through the year that the one always suffices to provide for the other. A temporary surplus may be followed by a temporary deficit. Transfers of goods on credit smooth over some of these irregularities, while the institution of banking provides a mechanism whereby the temporary surpluses of some entrepreneurs are made use of in meeting the temporary deficits of others. Moreover, while the entrepreneur need not continue to renew his capital investments unless he chooses, he is at liberty to do even more than this if he deems it advisable. That is, his profits — the excess of his gross income over and above his current and normal capital expenditures — may be used for additional capital expenditures.

Still another source of capital funds is found in the rent, wages, and interest into which, as we have seen, the expenses of production ultimately resolve themselves. For so far as these forms of income are saved, rather than expended immediately for consumption goods, they may be loaned directly or through savings institutions to entrepreneurs for productive employment.

This is the important exception, previously mentioned, to the statement that "the prices paid for consumers' shares in the social dividend constitute the fund which pays for the annual product." The truth is that as the flow of money income passes from entrepreneur to entrepreneur, a part only, although the larger part, is put into productive expenditures. The residuum is used by entrepreneurs in paying for their own shares in the social dividend. In much the same way the money incomes received by those who furnish labor, land, or capital is only in part paid back to entrepreneurs in return for consumption goods, the residuum being put (through loans to entrepreneurs) into productive expenditures.

It will be seen, then, that as the flow of money income passes through the hands of entrepreneurs, laborers, capitalists, and landowners, it is divided into two streams, one of which goes to pay for the present goods that have been produced in the past, while the other goes to pay for the present expenses of forwarding the production of goods for future consumption. This division represents a kind of social balancing of possible present satisfactions over against the larger future satisfactions which the productive use of capital makes possible. On the one hand we have the entrepreneurs' estimates of how much specific amounts of capital funds are worth to them, — estimates which involve judgments as to the amount of product dependent upon the use of these specific amounts of capital funds, the prices that can be got for such products, and the period of time that will elapse before they will be remunerated for such investments. On the other hand we have the estimates of those who supply capital funds as to the relative importance of future and present wants. The interest rate will normally be fixed, of course, at a point where the supply and demand of money capital will be in equilibrium.

In dividing his capital expenses between labor, land, and capital goods the entrepreneur will again be influenced by his estimates of how much the use of specific quantities of each of these factors in production will add to his money income. Here he has to reckon with the fact of diminishing productivity. He can get the same amount of product from different combinations of land, capital goods, and labor, but the larger the proportion of his expenditures he devotes to any one of these things (labor, for example), the smaller will be the increment of product dependent upon any one unit of it (any one laborer, for example). The most economical combination of labor, capital goods, and land is reached, of course, when the marginal expenditures for each add equal quantities to his product. All this, however, was discussed in detail when the activities of the individual entrepreneur were taken as the point of departure for the analysis of distribution in an earlier chapter. When we take the social point of view, so that production is made to appear as a cumulative process of capital investment, the expenses for capital goods become reduced to the more fundamental expenditures of rent, wages, and interest, involved in the production of such goods. In this view capital goods might, by a legitimate figure of speech, be said to be embodied rent, wages, and interest.

The social process of production involves the expenditure of rent, wages, and interest for returns of all possible degrees of futurity, and a consequent comparison and balancing of the productivity of investments for shorter and longer periods of time. That is, social estimates of productivity are estimates of the value of the amounts of the ultimate products, realizable at different periods of time in the future, that are dependent upon specific present expenditures in the form of rent, wages, or interest. Or, in other words, there is a continuous effort to make the most profitable of all the various possible combinations of land, labor, and waiting. For just as rent, wages, and interest are the ultimate expenses of production, so the ultimate factors in production may be said to be land, labor, and waiting.

The money incomes which individual laborers, landlords, and capitalists receive, and which constitute the claims (or, more accurately, the potential claims) against the social dividend, are determined by this social estimate of the specific amounts which they add to the value of the annual product, or, ultimately, to the value of finished products. Here again, on account of the law of diminishing productivity, the marginal product of land, labor, or waiting is the measure of the specific product attributed to a unit of land, labor, or waiting.

It must be remembered, however, that marginal productivity does not depend alone on the technical efficiency of labor, the fertility and accessibility of land, and the greater technical or physical productivity of the roundabout, indirect methods which waiting makes possible.[1] It also depends, just as fundamentally, upon the amount and elasticity of the supply of land, labor, and waiting. It has been shown in earlier chapters that the conditions of supply are very different in the case of each of the three factors in production. No account of the distributive process can be complete that does not lay special stress on these differences, for these are the things that become of most importance when economic theory is utilized in the untangling of the practical social problems growing out of the distribution of wealth.

Moreover, we cannot insist too strongly that the statement of the tendency toward an equality of the specific product attributable to a unit of land, labor, or capital funds and the price paid for its use is, after all, only an illuminating way of stating the real problem of distribution. Just as marginal utility is at the same time the cause and effect of price, so marginal productivity is at the same time the cause and effect of wages, rent, and interest. From one point of view it is seen that the competition of producers makes it necessary that specific units of land, labor, and capital should get a reward proportionate to the value of the amounts which they contribute to the social dividend; from another point of view it is equally clear that the necessary expenditures for land, labor, and capital are, in the long run, potent factors in determining the value of the things that make up the social dividend.

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[1] Whether roundabout, indirect methods of production are inherently more efficient (that is, whether they necessarily yield a larger product with the use of a given amount of labor and land) has been recently a matter of debate among economic writers. The fact that a process is roundabout does not in itself make it more economical. But that many roundabout processes are economical is proved by the simple fact that entrepreneurs find it profitable to use them. This fact is all that is needed to establish the importance of the greater technical productivity of indirect, time using methods of production for the theory of interest.

Furthermore, we are apt to forget that the word "productivity" as used in economics (and generally in current discussions of economic topics) has a distinctly limited meaning. To digress for a moment in order to make the point clearer: In the theory of consumption we emphasize the fact that many of the most important human wants are satisfied by "free goods," which, simply because they are free, lie outside the proper field of economic investigation. But the enjoyment of these free goods is usually dependent upon the possession of economic goods. Air is a free good, — to any one who can demand the economic goods necessary to life. The glorious scenery of the Alps is a free good, — to any one who can afford traveling expenses and hotel bills. In general, the enjoyment of many of the finer pleasures of life, involved in the common human relations of an individual to his physical and social environment, are "free," but free only to the individual who can afford the leisure and the economic goods without which many of these "free" pleasures are impossible.

For present purposes, however, the important point is that there are free production goods as well as free consumption goods. Nature furnishes some of these. The oceans and lakes furnish free pathways for commerce; natural forces of all kinds are freely utilized by men in the work of production. As was pointed out in an earlier chapter, we do not call these things productive, because no part of the annual product is dependent on the utilization of any particular unit of them. In this technical sense the wind is not productive, but windmills are. In order to utilize the ocean we have to invest capital in vessels and docks. We have to impute productivity to these things because they will not be furnished unless it is estimated that they will yield a remunerative income, and because the annual product will obviously be reduced if they are not furnished. But we would have to impute productivity to the Strait of Gibraltar if England were able to charge a toll for its use!

Somewhat analogous to these "free productive goods" is society's fund of accumulated knowledge of productive methods, — the heritage of centuries of economic evolution. This accumulated industrial experience is an infinitely more precious possession than the existing store of productive goods. Compare the productive possibilities of a community of men possessing this knowledge, but forced to begin work absolutely without a ready-made stock of capital goods, with those of a tribe of savages suddenly and miraculously equipped with all the productive appliances of modern civilization. Yet this vast fund of productive knowledge, so far as it is common property, is not thought of as "productive." The social dividend is continually being increased as a result of the discovery of new natural forces, or new ways of harnessing and utilizing natural forces. Secrecy or government patents make it possible for those who first introduce these new methods of production to reap an income from the temporary advantage it gives to them as producers. For the time being these new methods themselves have to be regarded as "productive," although they contribute much more to the increase of the social dividend after they have become matters of common knowledge and use, and hence have ceased to be called "productive."[1] Disinterested scientists, especially those in the employment of the government or of universities, have often given the results of their improvements in industrial methods freely to the world, thereby swelling the social dividend, but not reaping for themselves the pecuniary reward which goes to those who patent their improvements and thereby render them "productive." Moreover, many of the world's greatest advances in the technique of production have been made possible only by the patient researches of investigators in the "unproductive" field of pure science, working solely for love of the work, and without hope of pecuniary reward.[2]

We impute productivity, in the technical economic sense, only to goods or services which are the objects of property rights or of analogous rights of control, — such as a man's power to dispose of his own labor. The fact is that just as the benefits of free consumption goods are bound up with the possession of larger or smaller quantities of economic goods, so the utilization of free productive agencies is possible only in combination with labor, waiting, and scarce and appropriable natural objects, — and these have to be paid for. We harness natural forces for the work of production, but we impute productivity only to the harness. We continually learn better and better methods of doing our productive work, but we impute productivity only to the expenses involved in utilizing these methods, — not to the methods themselves.

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It is important that the reader should see the truth in the statement that the laborer, the landlord, and the capitalist get paid in proportion to their respective products. It is equally important that he should see clearly that there are definite limitations to the meaning and significance of the statement.

QUESTIONS

1. Is there a sense in which speculative profits can be said to be a reward for productive services? If so, should they be counted among the expenses of production?

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[1] The discussion of the social dividend in the preceding page relates only to "normal" or purely competitive production and distribution, and no account has been taken of the "productivity" of monopoly rights.

[2] See a note on this point in Merz, *History of European Thought in the Nineteenth Century*, Vol. I, p. 82. The list there given could be greatly extended.

2. Is good-will capital?

3. Analyze the effect of an increase of expenditures for present goods upon present and future social dividends.

4. If money wages could be suddenly increased 10 per cent would there be a corresponding increase in real wages?

5. Monopolists sometimes curtail their output in order to increase its total value. Should this be called productive?

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PART VI

THE RELATION OF THE STATE TO INDUSTRY

CHAPTER XXVI

NECESSITY OF STATE ACTIVITY

The State and the Meaning of State Activity. — Without going into the question of what constitutes a State, it will answer our purpose here to notice the extent of the conception as we use it. We in the United States are familiar with many kinds of government. When we speak of "the government," we generally mean the federal government, with its seat at Washington. Then comes the state government, then the city, the county, the township, and the school district. Each of these has its own governing to do, and is backed up in the doing of it by all the governments superior to it. Now, it is entirely an accident with us that out of these half dozen forms of government only one, and that not the highest, is known as the state. In most countries the governmental divisions most nearly corresponding to our states are known by some other name — departments, provinces, etc. When we use the term in the present work we never mean a state in our American sense unless that meaning is specified, but *any society acting through government.* Local governments are, of course, only branches of the main government. So, when a school district hires a school-teacher, or a township mends a road, or a city builds waterworks, or a "state" builds a penitentiary, or the federal government builds a post office, all these are State activities in the scientific sense of the word. So, too, when we speak of State intervention we may be talking about the township or the city or the general government. These are only different ways of exercising one and the same kind of power — that of organized government.

State and Government. — We use the word "State" then, in its generic sense. The term "governmental activity" is sometimes employed but it is less desirable. The word "government" suggests to the ordinary mind a power apart from and superior to the people — a restraining, repressing, punishing power; whereas the modern concept of the State is that of a coöperative institution. To those not still bound by eighteenth century traditions, the modern State signifies people working together. The *laissez-faire* theory of the State is compatible with the idea of State merely as government. Those under the influence of this theory oppose the economic activity of the State on account of the educational value of private activity, not stopping to reflect that in democracy the things that are done are done by the people and not by an external power. It is not to be assumed without examination that the management of a public waterworks has an educational value to the people at large inferior to the educational value of the management of a private waterworks. Critical examination and observation will show that the advantage is not wholly with either side, but that each form of enterprise has its own educational value. Public enterprise educates in economic affairs more extensively; private enterprise more intensively.

Purity and Efficiency of the State in Relation to its Economic Activities. — The distinction that we have made between repressive government and the coöperative State is especially important to us, as it is in the economic sphere that the State becomes most prominent as a coöperative concern. When our forefathers in the eighteenth century looked upon the State as a repressive agency and at the same time had an exaggerated belief in human perfectibility, they thought of the State as gradually dwindling away. They entertained what is called the *night-watchman theory of the State.* It is now clear, however, that if the repressive powers of the State dwindle, its coöperative features must increase precisely in the same proportion. As men improve in character their fitness to act together increases. The French philosopher, Montesquieu, more than one hundred and fifty years ago, laid down as a general principle that liberty invariably increases taxes. For a similar reason the purity and efficiency of the State always increase its economic activities.

We are not considering here primarily the political functions of the State. The importance of preserving law and order in the old restricted meaning of those terms is taken for granted. All the activities of the State naturally have their economic side; and, when there is a marked disturbance of law and order we appreciate the fact that its maintenance is, after all, fundamental in economic life, as it is in other departments of social life. All this, however, is treated in political science, and need not detain us here.

General Statement of the Necessity of State Activity. — The experience of the last century throughout the entire civilized world has convinced men that oppression and restriction are found, not only within the framework of government and because of government, but outside of government and in spite of government. World-wide experience has shown that to secure freedom it is necessary to regulate those economic relations upon which our very life depends. Production has become a social process and so has distribution; and social processes can be controlled only socially. But "social" in this sense does not necessarily mean state or governmental agencies. A great corporation is a social agency, so is a trade union, a consumers' league, or a charity organization society. But the supreme control is State control, and this alone is all-pervasive and in its very nature acts in the interest of all. It is a perversion of a private corporation when it does not act in the interest of the few who form it; it is perversion of the State when it acts in the interest of the few and not of the many. Thus we see in broad, general outlines the necessity for State activity in the economic life.

The State and the Fundamental Economic Institutions of Society. — We may trace out the necessity for State activity very briefly along a few lines. First, we will take up the institutional field. The State establishes great fundamental institutions of society, such as property and contract, already discussed in Chapter II. Without the State we may have possession; it is only through the State that possession becomes property. Without the State we may have agreement enforceable by the strong right arm of an interested party. The State steps in and makes agreements enforceable by its authority and they become contracts. The fundamental institutions of society are a matter of growth and are in a state of flux. They change more or less from time to time and from place to place. The inheritance of property has as many different regulations as there are States in the world. Every modification of any one of the fundamental institutions modifies economic life in general and the distribution of wealth in particular. As society becomes closely knitted and compact, the necessity of understanding the significance of the regulation of the fundamental institutions becomes increasingly apparent. If society is to be prosperous in all its members, we must have before us clearly a goal which we wish to reach and so shape our institutions as to enable us to reach the desired end. This does not mean any acceptance or arbitrary construction of Utopias, inasmuch as human nature has to be taken account of and the fact that it has been molded by past institutions and the past modes of production and exchange. It does mean, however, that we must use the same intelligence in constructing our economic policies that we do in constructing our private business policies.

Property, Private and Public. — The right of private property is one so fundamental in our modern life that we scarcely think of it as a creation of man maintained by constant vigilance on the part of the State and subject to human modification. Still less, perhaps, does it seem to us a right open to question. It seems like bed rock, an ultimate right, needing no other justification than its own obviousness. It we feel thus, however, about the right of private property or ownership it is only because we are dominated by present and local customs rather than by the facts of history or reason. We do not intend to impeach the right of private ownership, but it is a right which may as fairly be called in question as any other and must justify itself in the same manner. When a custom has obtained very widely and is deeply rooted in human life there is often a tendency to claim it as a "natural right." By a natural right men usually mean a right which is arbitrary, which is a right because it is a right, and "That's all there is about it." There are no such rights. All true rights are rational rights, rights which can show good reason for their claims and can justify their existence on the ground that they promote human welfare.

There is no possible basis of human right except human welfare. To claim that certain rights are ultimate without reference to their effect on society is to beg the question, and has been well characterized as "dogmatism in disguise." It is characteristic of unscientific and superficial thought to talk much of natural rights, and it is an encouraging sign that in our day such rights are subjected more and more to searching scrutiny. It is, therefore, as scientists rather than as iconoclasts that we should inquire into this time-honored right of private property.

1. *Beginning of the Right.* — Looking back into history we discover first that private property did not always exist. The savage at first owned nothing. Doubtless when he had caught or killed an animal he considered it more or less his, though even here it was the common property of the family or tribe rather than his own. Beyond this there were no property rights as we now understand them. Doubtless there were struggles for the possession of hunting grounds, but the victor's sense of ownership or right was little better developed than that of a victorious lion or buffalo. From these insignificant beginnings the right or sense of ownership has grown, including more and more articles and dividing up the ownership more and more, until at last nearly everything is owned and nearly everybody owns something. Not until the agricultural stage did land become property, and the last forms of tribal ownership have not yet everywhere disappeared before individual ownership.

2. *Strengthening of the Right.* — The next thing that impresses us is that private ownership has not always been so extensive or so exclusive as at present. We have seen already that the institution of private property has been extended to many things which were at first free goods. It is equally noticeable that the right of ownership has grown in intensity and exclusiveness. This is especially marked in the case of individuals whose claims as opposed to those of the tribe were at first slight and vague; but they

gradually grew, especially in the case of the chieftain, until tribal or communal rights broke down before them. The time was when a Scottish clan had absolute right to the territory they occupied, and no chieftain, however powerful, could have abridged that right. Now there are beautiful tracts of country in Scotland which are almost denuded of their agricultural population because the owners, the descendants of these same chieftains, have preferred to raise game rather than men on their estates. All are familiar with the general liberty allowed in this country of hunting and fishing on private estates, which in Europe is unheard of. Slowly, however, we are beginning to extend our claim to game and fish also, and this leniency of ownership is disappearing.

The nature and extent of these changes in private property must be controlled by the State in the public interest. How far interference with the right is justified cannot be discussed in general terms: such a discussion must deal with the specific problems of municipal ownership, railway regulation, and innumerable others. The point to be emphasized here is that in solving such problems the mere fact that a proposed solution restricts or enlarges the right of private property cannot itself be given much weight.

Trade-Marks, Copyrights, and Patents. — Closely connected with the general subject of property is a legal arrangement whereby exclusive privileges are awarded in return for services to society. These privileges become a special form of private property, and have particular significance in the distribution of wealth, although they are not without importance in the production of wealth on account of the stimulus which they give to improvement.

Trade-marks come under this head. They give property in a design which characterizes the product of a single undertaking, as an individual manufacturer, a firm, or a company. It is altogether desirable that those who, by the superiority of their wares, establish a reputation should be protected from that contemptible class who, without energy or initiative of their own, attempt to steal the fruits of the exertions of others. It encourages a producer to establish a reputation to know that he can distinguish his goods by a design which others may not imitate.

Copyrights and Patents. — Government creates exclusive privileges by copyright and patent laws; but this is done professedly in the interest of the general public, and not of any favored class. Authors and inventors are granted exclusive rights in their productions for a limited period. This monopoly is considered a fit reward for valuable public services. Copyrights and patents have been objected to as interferences with natural liberty, but they appear to have justified themselves in the stimulus which they have given to authorship and invention. It must, however, be remembered that all intellectual effort is an historical product. The telephone, for example, did not spring from the mind of one man, as Minerva from the head of Jupiter. The telephone was preceded by a century of scientific invention and discovery, most of it poorly enough remunerated. The telegraph was, similarly, the result of generations of careful, plodding industry of scores of men. Professor Henry, of Princeton College, whose services in connection with the completion of the telegraph were most distinguished, conscientiously refused to take out any patent. It also happens that several persons almost simultaneously and independently made the same discoveries and inventions. Now, if the man who makes the finishing touches which lead to utilization of a long line of work alone is rewarded, it is like paying only the workman who put the roof on the house. It is not generally understood how serious an interference with liberty patents are. A man who has a patent is allowed to say to all the rest of the world, "Because I have first done such and such things you must not do them." Yet there may be those who, about the same time, without any knowledge of him, had found out how to do them. When a principle existing in nature is allowed to be patented, and not merely the application of the principle, the interference with liberty becomes still stronger. The practical conclusion is somewhat like this: Patents, like copyrights, are beneficial. Experience seems to warrant this assertion. Patents do not, however, rest on so strong a basis as copyrights, because no two persons could ever write precisely the same book, and the fact that I have written a book in no wise keeps you from writing any book you please. Yet even intellectual effort is largely a social product. No great author gives the world what was merely evolved out of himself. On the contrary, such a one lets an age speak through him. The principle which should govern copyrights is a clear one. It is to give an author reward for his services, not to give persons a reward for services which others have performed. As has been well said, were not copyrights limited we might now have a "Duke of Shakespeare," deriving a large income from the services of a man who lived three hundred years ago.

Patents should not be granted on light and trivial grounds, and the period for which they are granted ought to be strictly limited, and subterfuges for the evasion of this limitation ought not to be suffered to succeed as at present. Moreover, owners of patents ought to receive their patents on conditions which will compel them to use them or allow them to lapse; also, to grant to others the right to use the patent on payment of a reasonable royalty. It has also been found beneficial in some countries to lay an annual and perhaps slightly progressive tax on patents, so that those which are not important or not used may not interfere with industrial progress, for it is a condition that non-payment of the tax works forfeiture of the patent. Laws ought also to be changed so as to prevent such an abuse of patents as we have frequently witnessed in our rural districts, where farmers have been induced to infringe patents unwittingly in order that damages might be collected from them. The suggestion of a former commissioner of patents, that the right of purchase of a patent be reserved by the United States, is to be commended. Our patents at the present time promote monopoly, and in some cases interfere seriously, it is to be feared, with manufactures. The patent laws require to be simplified and amended and their abuses removed. At the same time reward should in some way always be provided for those who make valuable inventions.

Public Property. — Public property operates to diffuse wealth; this is in its very nature. We may contrast, for example, the post office in the United States, which has given rise to no large fortunes, with the railways in the United States, which have been the source of many mammoth fortunes. On the other hand, when the post office has been a private institution, as it was for centuries on the

Continent of Europe, it was a source of enormous fortunes. There are very many aspects of public and private ownership, but their respective influence upon the distribution of wealth is of growing importance and is destined to occupy the increasing attention of economists and publicists. The relations of public to private property will be shaped with reference to the prevailing ideas of wealth distribution.

Inheritance of Property. — As Blackstone stated so clearly in his *Commentaries on the Laws of England*, and as we have already seen in Chapter II, the inheritance of property is a different fundamental institution from the right of property. The laws governing the inheritance of property determine to whom the right of property shall pass.[1] These laws of inheritance, as already stated, are constantly undergoing change, and have as many different forms as there are authorities regulating inheritance of property. That which seems a mere natural right at one time seems a natural wrong at another, as illustrated in the changing ideas and practice concerning the share of a father's estate to be inherited by the oldest son. The laws of inheritance are of prime force in the distribution of wealth, and every change in them modifies the distribution of wealth. In a society becoming increasingly self-conscious, it is necessary to regulate inheritance in accordance with those ideas concerning the diffusion of property which are accepted as the best.

Contract. — Unregulated contract cannot be free in any real sense of the term because back of contract lie all the inequalities and injustices found in human society. Contract can be free and equal only when the men making it are free and equal. We have in consequence the necessity of regulating contract in the general interest; and this is recognized in every country in the civilized world. It is especially marked in labor legislation, where the *laissez-faire* theory has utterly broken down. Where the processes of production are social, an individual cannot regulate individually those relations which are determined by contract. The hours of labor, for example, are socially determined. An employee in a great manufacturing establishment has his hours determined first of all by his immediate employer. If he does not accept these hours, he must quit work. The employer may be a great corporation, but even in that case the employer himself has only a limited power in determining the length of the working day, inasmuch as he has to produce goods and services in competition with others, and he likewise must have regard for general conditions. These general conditions must be determined legislatively and administratively. Even a modern nation like France does not find itself wholly free, and has thought it necessary to make an international treaty with Italy to determine conditions of toil both in Italy and in France. This treaty, dated April 15, 1905, marks a great epoch in the history of labor legislation. It was the first of its kind in the world's history, but has been followed by others. It shows the anachronism of those who say that men, women, and children must be allowed to work as many hours as they please. They can do what they please only as they work socially and bring their social will to bear upon individual conditions. This was conceded first of all with respect to children. Later, after much resistance, it found recognition in the case of women. Men, on account of their greater physical strength and their superior economic efficiency, especially in organization, are better able to regulate their conditions of toil individually and through organizations, but all the best authorities now recognize that there are many cases in which it is necessary to regulate the labor contract of adult men.

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[1] We use the term "inheritance" in its broadest sense, not distinguishing it from "bequest." It includes all those arrangements which determine how property shall pass from one generation to another.

Ethical Level of Competition. — One of the main lines of activity of the State in economic life consists in regulating the ethical level of competition. One of the great movements of our times consists in the effort to remove the evils of competition, not by its abolition, but by its ethical regulation. When it is forbidden manufacturers to employ children, competition exists, but the ethical level is raised. An almost endless number of illustrations is afforded by the legislation in our own and other countries during the past generation. Pure food laws afford the most marked recent illustration.

The Consumer. — John Stuart Mill recognized that there were many cases in which the consumer could not determine the quality of the commodities offered him by the producer, and this was treated by him as one of the exceptions to the general rule of governmental non-interference. He instanced education as a case in which the greater the need of the consumer the less his capacity to pass judgment upon the kind of education offered. We have seen during the past fifty years a continually widening field of State activity to protect the consumer in these cases in which he cannot protect himself. This growing activity of the State is recognized by modern civilization as a necessity. It now embraces the inspection of food products, and it has been demonstrated conclusively that very generally the consumer is unable to pass judgment upon the quality of the food which he purchases. He is unable to detect the presence of even most injurious poisons. It is seen that the public health is involved in this sort of economic activity. After long resistance to food inspection and certification in the United States, the first concession was made on account of foreign pressure. Germany, in particular, was unwilling to receive our meats until they had been inspected. A growing movement in favor of protecting the consumer has found its culmination in the Pure Food Act passed by Congress in 1906.

As John Stuart Mill so well said long ago, we can draw no arbitrary line or ring fence around the activity of government. In every case it has to be determined by considerations of public utility.

Monopolies, Government Ownership, etc. — Wherever competition is absent, there is necessity for State activity which must take the form of public ownership and operation or of control of corporations. This subject, however, has been discussed in another chapter.

The State the Guardian of the Permanent Economic Interests of Society. — The State is conceived of as having immortality. No definite limit can be placed to its life, and all its plans must be made with reference to perpetuity of existence. Were any public policies to be framed on the hypothesis of the decay and death of the State, it would indicate in itself an almost inconceivably deplorable condition of society. It is therefore necessary that the State, as the representative of all the members of the body politic and of all generations, should particularly care for permanent interests. It alone has the nature and the power equal to this task.

This proposition finds most clear illustration in forestry. Without going into other technical details, the mere fact that rational forestry requires plans to be made for perhaps one hundred years in advance makes it difficult for private persons to safeguard our interests in this particular. The experience of the civilized world, that of the United States included, shows conclusively that only large State activity, including a great deal of public ownership and management, can provide adequately for our varied forestry needs. Federal government as well as our separate commonwealths have made a good beginning, but it is only a beginning; and in floods and drought we suffer average annual losses of many millions which would have been obviated had we begun our activity earlier and carried it on more extensively.

The same principles apply in large measure to our great natural resources, such as coal and iron, and our vast water power. The conservation of our natural resources for the general good — " for and by the people " — is one of the greatest economic problems of the day.

QUESTIONS AND EXERCISES

1. Why do we speak of the economic functions of the *State* rather than of *government?* Is this distinction merely convenient, or is it absolute? Do you feel that you are governed by the post office? How do you help make it a coöperative institution?

2. Mention any illustrations of the propositions that purity and efficiency of the State increase its functions.

3. Would your personal freedom be increased if the economic activities of the state, city, or town in which you live were decreased?

4. Why is it necessary that the State should be active with respect to property and contract? Does unregulated labor contract mean servitude and oppression? If so, why? If not, why not? What is the significance of the fact that modern approximations to slavery rest upon contract nominally free? Discuss this proposition: "There is no greater inequality than the equal treatment of unequals." If a woman works fourteen hours a day in a sweat shop, is her contract to do so an expression of her freedom?

5. Do copyrights interfere less with industrial liberty than patents? If so, why? Would it be unjust to refuse to grant patents hereafter? Would it be inexpedient? Why?

6. Contrast public property with private property in its effects (*a*) on the production, (*b*) on the diffusion, of wealth.

7. Explain the reasons for the increase in public activity in the inspection of food products. What evils and what benefits of this public activity have fallen under your observation?

8. What other kinds of State activity are discussed in this chapter? Give the reasons for each.

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CHAPTER XXVII

TRANSPORTATION

Scope and Significance. — A complete study of transportation would include a variety of subjects, as is seen from the following outline: —

I. Transmission of Ideas.
    (1) The Post Office.
    (2) The Telegraph.
    (3) The Telephone.
II. Land Transportation.
    (1) Steam Railways.
    (2) Interurban and City Railways.
    (3) Vehicles on the Common Roads. Auto
III. Water Transportation.
    (1) Ocean.
    (2) Inland.
        a. Canals.
        b. Rivers.
        c. Lakes.

Transportation may be studied from a number of points of view, all of them closely related. It presents its peculiar problems to the engineer, to the lawyer, to the accountant, to the business manager, to the historian, and finally to the economist. The economist studies the relations of transportation to other industries and to the public welfare. The heart of the subject from this point of view is the question of rates and fares.

Transportation is most intimately related to the other branches of industry. Hardly anything can be produced without the participation of some transportation agent. Modern industrial civilization would be impossible without an efficient system of commercial intercourse, although to be sure the dependence is not one-sided, but is mutual, for present methods of transportation clearly would be impossible without our industrial progress. The influence of cheap carriage is especially important in the fact that it promotes an extensive division of labor by widening the market. It permits each region to devote itself to that line of production for which it is best adapted.

In the present chapter, railway transportation alone will be considered, although the subject of water transportation is assuming increasing importance in the United States. We are beginning to realize that the reaction against the early canal mania has been too great. Canal and river improvement, however, should be urged, not on the general ground that water transportation is cheap, but only where in specific instances it can be proved to be as advantageous as rail transportation when all of the elements of expense are taken into consideration. Nor should canal building be advocated as a means of controlling railway rates. If we wish to regulate the charges of private carriers, a commission of trained men is the best device we have yet discovered.

The Railway System of the United States. — The aggregate length of railway mileage on June 30, 1906, was 224,363 miles. The most important states with respect to length of line were Texas, Illinois, Pennsylvania, Iowa, and Ohio. In number of miles of line per 10,000 inhabitants, the leading states or territories were: Nevada, Arizona, Wyoming, New Mexico, and Montana, but in number of miles of line per 100 square miles of territory, the lead was taken by the District of Columbia, New Jersey, Massachusetts, Pennsylvania, and Ohio. The foregoing refers to the length of road without regard to the second, third, or fourth tracks. To operate this mileage the railway companies employ about 3½ per cent of the persons engaged in gainful occupations in the United States. The numerical strength and average daily wages of each class of employees is given in the following table: —

TABLE I

Classification of Employees — 1906

Class	Number	Average Daily Compensation
General officers	6,090	$11.81
Other officers	6,705	5.82
General office clerks	57,210	2.24
Station agents	34,940	1.94
Other station men	138,778	1.69
Enginemen	59,855	4.12
Firemen	62,678	2.42
Conductors	43,936	3.51
Other trainmen	119,087	2.35
Machinists	51,253	2.69
Carpenters	63,830	2.28
Other shopmen	199,940	1.92
Section foremen	40,463	1.80
Other trackmen	343,791	1.36
Switch tenders, crossing tenders, and watchmen	49,659	1.80
Telegraph operators and dispatchers	36,090	2.13
Employees — account floating equipment	8,314	2.10
All other employees and laborers	198,736	1.83
Total	1,521,355	

The amount of passenger service in a year is sufficient to give every man, woman, and child in the United States a journey of over two hundred miles, and the amount of freight reported as carried (originating on line) is more than ten tons for each inhabitant (1900). The mileage of empty freight cars is nearly half as large as the mileage of loaded freight cars.

In 1906 there were 1287 operating roads in the United States, of which 1007 were nominally independent. Nine tenths of these lines are less than 250 miles in length, and represent less than a fifth of the total mileage. On the other hand, the fifty largest roads control about two thirds of the total mileage.

Railway Competition. — The early roads were short, independent lines largely for local traffic or to serve as feeders to canals. The first movement toward the efficiency of the present system was the welding together of separate links into through lines. The New York Central, for example, was formed in 1853 out of ten previously independent lines between Albany and Buffalo. The development of parallel through lines introduced an era of sharp competition. In the seventies the lines connecting Chicago and the Atlantic seaboard engaged in a series of rate wars. The experience of this decade showed clearly the temporary and unstable character of competition among parallel lines. The rule seemed to be that a railway war must be followed by a rate agreement of some sort, so that, instead of the maintenance of a supposedly fair level of rates by the steady pressure of competition, we find there was an alternation of high and low rates. The inevitable annihilation of direct competition in rates between railways is clearly portrayed in a congressional report in 1874, where the following prediction was made: "But when the natural tendencies of corporate power have wrought out their inevitable conclusions, the magnitude of our combinations will probably be in proportion to the extent of the field in which they operate." But so strong was the feeling at that time that competition is the life of trade, that it was recommended by the committee who made this report that the government build a line of its own simply to maintain competition with the private roads, for it was thought that the government could resist the great temptation to combine with the other roads.

The history of Belgium affords an instructive illustration of the effect of a mixed system of public and private ownership. Belgium began in 1837 with a carefully worked-out system of public railways. Ten years later it was decided to grant charters to private companies. A large number of private roads were organized, some with the purpose of competing with the state system. It was thought that competition between the state and private roads would be beneficial. The Massachusetts Railroad Commission, in its report of 1871, recommended a trial of this plan in Massachusetts But in Belgium the private lines were soon merged into four systems, which competed so vigorously with the state roads that the government adopted the policy of purchasing them. The mixed system was also tried in Prussia with unfavorable results. The advantages of government management cannot show themselves fully under such conditions.

Pooling and Consolidation. — As a result of the intense struggle for business among the roads, there was a widespread resort to the practice of *pooling*, that is, a division of the earnings or tonnage of the competitive business. This form of combination, however, was at least nominally abandoned after it was declared illegal by the Interstate Commerce Act of 1887, but organizations for the purpose of making rates continued to exist. In 1894 these were also declared illegal by the Supreme Court of the United States on the ground that they were in violation of the Anti-Trust Act of 1890. The court, however, did not seem to prohibit the enlargement of the various systems by the purchase and lease of other lines, or controlling them indirectly by the purchase of the majority of their stock. But in 1903 the Supreme Court again applied the Anti-Trust Act of 1890 in a case against the Northern Securities Company, a corporation formed, not for the purpose of engaging in the railway business directly, but for the purpose of holding the capital stock of the Great Northern, Northern Pacific, and Burlington systems. But the legal prohibitions have had little effect upon the tendency to eliminate competition from the railway business.

The present organization of any one of our large systems, like a geological record, reveals the nature of the changes that have been going on. The consolidated company controls a number of large lines, perhaps by stock ownership, and each one of these is made up of a number of subsidiary roads united as a result of purchase, partial-stock ownership, or lease.

But the extent of consolidation is not shown by the growth of the large systems, for these are not wholly independent. A number of the large systems may be under the control of the same group of financiers. While the actual extent of this centralization in ownership is difficult to state, the well-known illustrations are striking: the *Harriman group* includes the Union Pacific, the Southern Pacific, the Illinois Central, and the Chicago and Alton systems, with partial control of the Baltimore and Ohio. In the *Gould group* are: the Missouri Pacific, Wabash, Denver and Rio Grande, Western Pacific, Texas and Pacific, and the St. Louis and Southwestern systems. The Great Northern, Northern Pacific, and Burlington systems are under one control. The Pennsylvania until recently controlled the Baltimore and Ohio and Norfolk and Western systems. The Vanderbilt interests dominate the New York Central, the Chicago and Northwestern, and the Cleveland, Cincinnati, Chicago, and St. Louis systems.

In spite of the progress of consolidation, competition has not entirely disappeared. Even where there is no active cutting of rates by parallel lines, there may be rivalry in service, but this also has its limitations, as is seen in the agreements that the shorter lines between New York and Chicago and between Chicago and Minneapolis shall not utilize their natural advantage in speed. Again, alternative routes may lead to competition among railways that are not parallel. Thus the roads serving the North Atlantic ports compete in the carriage of grain with those extending to Galveston and New Orleans.

Much has recently been said about the influence of market competition as a force affecting rates, even when the roads have been consolidated. To illustrate, the farmers and railways of North Dakota are joint producers of wheat, and they are both desirous that it shall be sold in competition with other wheat in the London market. It would be ruinous to the roads to make such high rates that the farmers could not afford to sell their grain. The railways cannot be prosperous if the farmers, merchants, and manufacturers along their lines are not prosperous. This partnership, however, has its limits, for a rate which would enable the producer to continue in business may yield the railway a surplus which could be shared with the producer.

The Movement of Rates. — The average revenue per ton-mile of railways in the United States fell from 1.001 cents in 1888 to .729 cents in 1900, rising again to .780 in 1904, .766 in 1905, and .748 in 1906. Average ton-mile receipts, however, are not an accurate index of changes in rates, for such an index is affected by the changes in the nature of the traffic as well as by changes in rates changed. If the proportion of low-grade freight increases, there will be a fall in ton-mile receipts without any change in rates. But if we also take into consideration rates on specific commodities, such as wheat, stoves, etc., no doubt remains but that a large decrease has taken place. In the last forty years there has probably been a fall of one half in rates on through traffic, but the fall was mostly in the first half of that period; in the second half there has been only a slight fall, with possibly some increase since 1900. In local rates the decline has been less marked. The decline in passenger rates before the recent reductions by government authority was less than in freight rates. Improvement in service should, however, be considered in this connection. But whatever the actual movement of rates, the question will inevitably be asked whether they have declined as much as they should have done, and whether the growth in consolidation which we have noted will not prevent such a decline in the future as may be warranted by the growth in traffic and attendant economies in operation. The question is, how shall a "reasonable" freight rate be determined?

The Level of Rates. — If, owing to the monopolistic nature of the railway business, the determination of rates can no longer be left to the automatic working of competitive forces, they must be consciously determined according to fundamental principles. Competition was supposed to do justice by limiting the aggregate earnings of an establishment approximately to the expenses of doing the business, and it seems most natural that we should apply the same guide in our conscious rate making. There can be no doubt but that expense is a safe guide so far as it can be accurately determined. It needs but a slight analysis of railway expenditure, however, to reveal the difficulty of using expense as a criterion of a fair rate. In 1906 the railways reported to the Interstate Commerce Commission gross income amounting to $2,386,285,473 (from operation and investments), and in this same year the interest and dividends amounted to $530,545,911, or 22.2 per cent of the gross income. This represents the amount accruing to the stock and bondholders as joint owners of the business, if we ignore the increase in the value of the plant that results from charging improvements to operating expenses. Is this a proper payment to such owners? That some compensation of this sort is necessary under the régime of private capitalism is clear, for if none were made, new roads would not be built nor would old ones be maintained. A common answer is that the owners should be allowed a fair return upon their investment, but it is difficult to say what is a fair return and what is the actual investment. Inasmuch as the institution of private capitalism is maintained for the benefit of the community and not the community for the benefit of private capitalism, that payment to owners of the railways is proper which is necessary to evoke their services, that is, the service of maintaining and extending the railway system in accordance with the public needs. This basis suggests the application of the current rate of interest to the cost of reproducing the physical property in its present condition as a general guide, although doubtless our regard for vested interests would compel us to take account of the fact that present holders of stocks and bonds have in many cases paid high prices for them in anticipation of the continuance of the present monopoly earnings of the railways. It should also be remembered that to guarantee to every dollar invested in railways the current rate of interest would be to create a privileged class of investors.[1] The attempt to find a valuation upon which to reckon earnings has been sharply criticised, but no other solution for the problem of finding a reasonable level of rates has been offered. Reject this, and we have the alternative of letting the railways charge what they please, or of adopting government ownership.

Relative Rates. — When the level of rates has been determined we are confronted by the further question of what should be charged for each particular shipment, and here we find the application of the principle of expense of still greater difficulty and uncertainty. In attempting to say what it costs to carry a ton of coal a mile, we find that a large part of the expenditure is incurred, not for one specific kind of commodity, but jointly for many kinds. The roadbed, ties, and rails are maintained, not for coal cars alone, but for passenger trains as well. Even with the most careful bookkeeping it is possible to trace a causal connection between only a part of the expenses and specific portions of the traffic.

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[1] This principle has been recognized by the Supreme Court of the United States in County of Stanislaus (California) *vs.* San Joaquin and King's River C. & I. Co., 1903, 192 U.S. 201. Compare also page 211, above.

It is possible to say that a certain traffic requires a certain amount of extra labor and fuel, and causes a certain amount of wear and tear, and clearly such traffic should normally pay enough to meet these expenses, at least, if we wish to prevent waste. But what shall be done with such joint expenditures as fall under the head of maintenance of way? Shall they be charged to the freight or to the passenger departments? If partly to both, on what basis shall they be divided? A full discussion of the matter cannot be given here. Some writers think that the attempt to discover the exact cost of carrying a commodity cannot be determined. They would charge these common expenses to those shipments which can most easily bear them. This principle is followed in part in all freight classifications. But recently the view that the cost of transporting a commodity can be determined has received support in a decision of the Railroad Commission of Wisconsin. Following the practice of manufacturing corporations, the commission made a complete apportionment to the freight and passenger departments of the expenditures of one railway system, using an arbitrary basis that seemed fair where no direct connection could be found between the expense and each branch of the traffic.

To illustrate the nature of the problem, we may note the Commission's method of dealing with one class of expenditure — maintenance of way. It was necessary first to apportion expenditures between that part of the road lying in Wisconsin and that part lying in other states. For this purpose the cost of maintaining the way was first divided into two parts: (*a*) that depending on natural depreciation, and (*b*) that due to the movement of trains. The first was apportioned to Wisconsin on the basis of the road mileage, and the second according to the revenue train mileage in Wisconsin. The Commission then proceeded to separate the Wisconsin expenditure between the passenger and freight departments. That part of the expense due to the movement of trains was divided between passenger and freight traffic according to the amount of passenger train mileage and freight train mileage respectively, switching mileage being taken as freight train mileage. That part due to natural depreciation was apportioned according to the gross earnings of the two departments. This last procedure is perhaps open to criticism because gross earnings depend in part on prices charged, and it was the reasonableness of existing prices that it was sought to determine. In the long run the natural depreciation depends on how costly a plant is exposed to wind and weather; in the long run the size of the plant grows with the traffic; and as traffic is roughly measured by train mileage, we may say that train mileage would be a more reasonable basis for the division of expenses due to natural depreciation.[1]

Distance. — The most perplexing factor in rate making is that of distance. In actual practice, distance has been ignored to a very large degree. For example, in *group rates*, the same charge is made to a common market from any point within a certain area, irrespective of the length of the haul. In the *basing-point system*, the rates to small towns in a certain region will not vary according to the distance from the point of shipment, but are found by adding together the rate to a railway center, called a basing point, and the local rate from this basing point to the small town, even though the town be nearer than the basing point to the original point of shipment. Again, goods brought from a foreign country to a point in the interior may be charged a less rate than the domestic rate from the point of entry to the same point in the interior. Again, goods intended for export sent from Chicago to New York may pay less than those intended for use in New York. Goods are sent to San Francisco from New York for less than the rate from many points west of the Mississippi River to San Francisco. These conditions have arisen largely from competition of railways among themselves and with waterways, and do not seem to be necessary from the standpoint of the welfare of the country as a whole. The fact that distance is one element in the expense of carriage suggests that it should be taken account of in making rates, although there are many circumstances which necessitate a departure from the rule of a strict mileage rate. The fact that terminal charges, for example, are the same for a long as for a short haul justifies a decline in the total charge per ton-mile as distance grows. The great advantage of following a schedule of rates based on distance is that it affords some basis, although not an absolute guide, for settling sectional disputes concerning railway charges.

Government Ownership or Government Regulation? — With the decline of competition in the railway business, the alternative lies between private operation with government supervision on the one hand, and government ownership and operation on the other. The important arguments in favor of private operation are: (1) efficiency in management; (2) greater elasticity in meeting the varying demands of business; (3) the danger in government operation of throwing sectional disputes as to rates into politics. The important arguments in favor of government operation are: (1) the essential conflict between private and public interests in the conduct of the business, the aim of the one being profit, the aim of the other being service; (2) the elimination of the railway interests from politics; (3) the unearned increment would accrue to society; (4) the elimination of personal discrimination.

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[1] In Buel *vs.* C. M. and St. P. Ry. Co., *Wisconsin Railroad Commission Reports*, Vol. 1, pp. 324 and 508.

On whichever side the weight of the argument may lie, we in the United States are likely to make a more thorough experiment with private operation under government regulation.

Government Regulation of Railways in the United States. — Railway corporations in the United States are almost all organized under the laws of the separate states. Formerly special laws were passed when a railway company was to be formed, but at the present time there are general laws specifying what conditions must be complied with in order that a number of persons may organize a railway corporation. The separate states have imposed a number of regulations and restrictions not only on the companies which they have chartered but also on others doing business within their borders. These relate to the safety and comfort of passengers, the train service, consolidations, pooling, ticket-scalping, discriminations between shippers and places, and finally the reasonableness of charges. Railway commissions are found in a majority of the states. One type, exemplified by the Massachusetts commission, has simply advisory and investigative powers with respect to rates, but it cannot name reasonable rates and enforce them, although it can recommend such action to the legislature. Another type has power to name a reasonable rate in place of one that has been found unreasonable. Such is the Wisconsin commission, and the tendency is for the latter type to prevail.

That a railway corporation is subject to government regulation in the interest of the public welfare has been clearly established by a long line of judicial decisions beginning with the leading

"Granger" case of Munn *vs.* Illinois.[1] But the authority of the state governments has been greatly limited by two provisions in the federal Constitution. Congress having been given control over interstate commerce, the states must confine themselves in their regulations to commerce wholly within the state. Again, the Fourteenth Amendment declares that no state shall deprive any person of life, liberty, or property without due process of law nor deny to any person within its jurisdiction the equal protection of the law. The courts have interpreted this provision to mean that neither a state legislature nor a commission created by it can fix rates even on *intra*-state traffic without a review by the courts. The courts have in some cases declared rate legislation void on the ground that it confiscated the property of the stockholders. The activity of the federal government may be summarized as follows: —

(1) As to rates: All charges made for the transportation of passengers or property must be "just and reasonable," but no standard of reasonableness or justice has been given by Congress. This question is left largely to the judgment of the Interstate Commerce Commission, a body of seven men appointed by the President with the "advice and consent" of the Senate. When a complaint has been made, the commission, if it finds upon investigation that the rate complained of is unreasonable, may prescribe what shall be the *maximum charge* in that case in the future. Its order may be set aside by the courts, for the Fifth Amendment restrains the federal government as the Fourteenth does the state governments. Rates must be published and filed with the Commission, and the railway must not under penalty depart from the published rate, nor make any change without thirty days' notice. There shall be no "unjust discrimination" or "unreasonable preference" in the making of rates. In particular, the giving or accepting of rebates is punishable. Also, no greater charge shall be made for a short than for a long haul on goods going in the same direction on the same line under "substantially similar circumstances and conditions." This last provision has been much weakened by the interpretation placed upon it by the

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[1] 1876, 94 U.S. 113.

United States Supreme Court, which has held that competition of railways at one point might constitute a dissimilar circumstance justifying a lower charge for the longer haul.

(2) As to publicity of accounts: The carriers are required to report to the Interstate Commerce Commission regarding their finances and traffic. The Commission has access to the records and may prescribe the form in which they shall be kept.

(3) As to combinations: It is unlawful for railways to enter into an agreement for the pooling of freights or earnings. Agreements to maintain freight rates are also unlawful as coming under the Anti-Trust Act of 1890 which prohibits "every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several states, or with foreign nations."

(4) As to safety appliances: Carriers must equip their cars with automatic couplers, train brakes, grab irons and hand holds. The law does not require the introduction of block signal systems.

The Work of the Interstate Commerce Commission. — Since its creation in 1887 the Interstate Commerce Commission has done much good work in promoting an understanding of the relations between the public and the railways, but in the actual removal of abuses its powers proved utterly inadequate. As a result of a wave of popular indignation, Congress in 1906 extended the Commission's power of investigation and increased somewhat its power over rates. Nothing, however, was done to give definiteness to the long and short haul provision, nor were steps taken to settle the fundamental question of the level of rates.

QUESTIONS AND EXERCISES

1. Write a description of some railway system, giving its organization, capitalization, earnings, dividends, nature of traffic and territory covered, etc.
2. Make a digest of the opinions in the Northern Securities case, 193 U.S. 197.
3. If you have paid $200 for a share of stock in a monopolistic enterprise, have you a right to complain if government regulation so affects its earnings, that the price of the share falls to $100?
4. Should the large shipper get lower rates than the small shipper?
5. Compare the powers of the Interstate Commerce Commission with those of the Canadian Commission.

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CHAPTER XXVIII

INSURANCE

Nature of Insurance. — The essential idea of the modern institution of insurance is coöperation in the bearing of losses which are likely to happen to any one of a large group of persons but which will actually fall upon but few members of the group. It is thus directly opposed to gambling, although wagers have frequently been made in the form of the insurance contract. It may appear at first that the man who insures his house is making a wager with the insurance company that his house will burn, but this is in fact like betting on both sides of an event. If the man does not insure, he may be regarded as betting that his house will not burn, and by wagering with the insurance company that it will burn, he relieves himself of risk. For this relief he is willing to incur the certain loss of his premium. Insurance means certain loss for the policy holders, but it implies many small losses in place of a few unbearable ones. In well-developed forms of insurance there is also no risk for the insurance company because the amount of loss is approximately known in advance, as will be explained presently.

The question is sometimes asked whether insurance is productive in the sense that other economic activities are productive. The answer is decidedly in the affirmative, for the feeling of security that it makes possible is a real satisfaction which we are willing to purchase. Furthermore, the relief of distress among the unfortunate without compelling them to accept charity is a distinct social gain, and finally, many of our business operations are facilitated by the existence of a system of insurance. Prevention of loss is not properly a part of the idea of insurance, but nevertheless, insurance as it exists to-day does have many tendencies in that direction, especially in such forms as fire and steam-boiler insurance. On the other hand, insurance causes a certain amount of loss by provoking to some extent incendiarism, self-mutilation, or suicide, and even normal persons are likely to be less careful when they know they are insured. On the whole, however, we can scarcely overestimate the importance to society of an institution which equalizes the shocks and multiplies the incentives to thrift and wholesome economic activity.

The Law of Probabilities. — A special profession (that of the actuary) and a special branch of mathematics have grown up as a basis of the institution of insurance. It is a knowledge of the law of large numbers that changes the insurance business from a wager to a legitimate business. If a coin is tossed a large number of times, heads will appear about as often as tails. This may be counted upon as practically certain, but with respect to any particular throw taken by itself, there is no way of telling in advance whether heads or tails will appear. This truth has been worked out and applied most definitely to life insurance, but in other branches also an effort is made to gather sufficient data that will make possible the formulation of statistical laws as a guide for future business.

Origin and Development. — Arrangements embodying the idea of insurance are found among the ancients, but the modern institution of insurance, although its origin is obscure, first becomes prominent in the loans on bottomry which became common during the thirteenth and fourteenth centuries. A loan on bottomry meant that money was borrowed by the owner of a ship and was to be repaid with interest at the termination of the voyage, but the principal and interest were not to be repaid if the ship was lost. Sometimes this took the form of insuring the captain's life, but no scientific system of life insurance appeared until the compilation of life tables.

Fire insurance received an impetus from the Great Fire of London in 1666, the first company organized upon strict mercantile principles being the *Fire Office*, organized in 1680. It had a brigade of its own to prevent and extinguish fires. In 1693 Edmund Halley made a report to the Royal Society regarding the mortality at various ages upon the basis of tables of births and funerals at the city of Breslau, but practically, life insurance as a business dates from the organization of the "Old Equitable" in 1762.

Before this, however, there were many associations for conducting insurance upon a speculative basis, which entered into wagers of every conceivable description. "Even the morality of the newspapers of that day was shocked by such proceedings: we find the *London Chronicle* of 1768 thus declaiming, 'The introduction and amazing progress of illicit gaming at Lloyd's Coffee-house is, among others, a powerful and very melancholy proof of the degeneracy of the time. Though gaming in any degree is perverting the original and useful design of that Coffee-house, *it may in some measure be excusable to speculate on the following subjects:* — Mr. Wilkes being elected member for London; *which was done from* 5 *to* 50 *guineas per cent.;* — Mr. Wilkes being elected member for Middlesex, from 20 to 70 guineas per cent; — Alderman Bond's life *for one year*, now doing at 7 per cent; — On Sir J. H. [mark the modesty] being turned out in one year, now doing at 12 guineas per cent; — On John Wilkes' life for one year, now doing at five per cent. N.B. — *Warranted to remain in prison during that period;* — On a declaration of war with France or Spain in one year, 8 guineas per cent. But,' continues the sensitive journalist, 'when policies come to be opened on two of the first peers in Britain *losing their heads at* 10*s.* 6*d. per cent.* or on the dissolution of the present parliament within one year at 5 guineas per cent., which are now actually doing, and underwritten *chiefly by Scotsmen*, at the above Coffee-house, *it is surely high time to interfere.*' "[1]

In the United States, fire insurance was fairly well begun even in pre-revolutionary days. In 1830 was organized the New York Life and Trust Company, and twelve years later appeared the Mutual Life Insurance Company of New York, which is the oldest of the existing life insurance companies which insure more than a restricted class of individuals. Tables I and II show the growth of life, fire, and marine insurance in the United States. A decline in the number and importance of life companies appears in the seventies. The numerous failures of this period brought the "old line" life insurance into discredit, and in the following years this fact, together with the desire for cheap insurance, caused a marked development of assessment insurance, against which there has in turn been a reaction because of its unscientific basis. Recently the "old line" companies have again suffered a loss of

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[1] Walford, *The Insurance Guide and Handbook*, 4th ed., p. 27.

TABLE I

NUMBER OF POLICIES AND AMOUNT OF INSURANCE IN FORCE IN ORDINARY AND INDUSTRIAL COMPANIES, 1850 TO 1905[1]

	ORDINARY		INDUSTRIAL	
Year	Number of Policies	Amount (Dollars)	Number of Policies	Amount (Dollars)
1850	29,407	68,614,189	......	....
1860	60,000	180,000,000	......	....
1870	839,226	2,262,847,000	......	....
1880	679,690	1,564,183,532	236,674	20,533,469
1885	890,924	2,155,330,627	1,377,150	145,938,241
1890	1,319,561	3,620,057,439	3,883,529	429,521,128
1895	1,940,945	4,917,694,131	6,952,757	820,740,641
1900	3,176,051	7,093,152,380	11,219,296	1,468,986,366
1905	5,621,417	11,054,255,524	16,872,583	2,309,754,253

TABLE II

FIRE, MARINE, AND CASUALTY INSURANCE, 1890–1905[1]

	FIRE AND MARINE (STOCK AND MUTUAL)			CASUALTY AND MISCELLANEOUS		
Year	Number of companies	Total income	Payments to policy holders	Number of companies	Total income	Payments to policy holders
		Dollars	Dollars		Dollars	Dollars
1890	580	157,857,983	80,768,012	34	9,758,413	2,933,306
1892	491	179,044,675	104,864,902	49	12,727,576	4,063,374
1893	489	178,971,022	114,652,625	46	15,140,830	4,815,298
1894	558	176,364,638	100,919,134	41	14,238,564	4,601,207
1895	583	176,300,042	97,379,026	47	18,077,146	5,430,607
1896	541	172,945,625	89,903,460	50	20,154,235	6,494,944
1897	530	176,751,124	87,165,252	53	22,859,866	7,113,818
1898	504	178,320,217	97,974,682	54	23,478,642	7,583,541
1899	484	184,142,217	114,619,372	59	27,117,449	8,802,777
1900	493	198,312,577	116,753,281	62	32,309,619	10,166,796
1901	482	216,452,381	121,020,924	67	39,844,427	12,966,145
1902	489	239,468,206	123,332,012	67	43,980,061	14,952,568
1903	563	261,431,401	125,434,065	73	49,716,644	16,679,975
1904	550	281,228,402	165,658,558	82	55,685,447	19,332,539
1905	612	296,562,588	140,825,191	95	63,190,680	21,646,844

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[1] See *Statistical Abstract of the United States* (annual) and *The Insurance Year Books* published annually by the Spectator Company, New York, N.Y.

prestige on account of the scandalous extravagance and corruption revealed by official investigations. The evil practices had to do chiefly with the management of the surplus, which was not under legal control as was the reserve. These terms will be explained presently. It is probable that they will now learn the lesson of economy, just as they have learned from their experience a generation ago the supreme need of being solvent. Insurance has grown until the insurance companies rival the banks in financial importance. The assets of the leading life insurance companies are nearly equal to the capital and deposits of all national banks.

Forms of Insurance Organization. — Fire insurance may be written by stock companies, by mutual companies, or by associations of individual insurers, known as underwriters and Lloyds. Mutual companies, again, may be either local county or town mutuals, state or general mutuals, or the manufacturers' mutuals. The local town mutuals have the advantage that they can be conducted with a very low cost of administration, but the business of fire insurance seems best adapted to the stock companies, since it is desirable that the risk of a conflagration should be spread over a very wide territory.

Life companies are also found both in the stock and mutual form. Theoretically the management of the latter is in the hands of the policy holders themselves, but in actual practice they must be managed by a small group of financiers. Attempts have been made by recent legislation in some states to make the management more nearly representative of the interests of the policy holders by providing for election of officers by mail. Life insurance companies are also classified according to the plans of premium payments: (1) "old line" level premium, (2) assessment, (3) stipulated premium, and (4) fraternal orders.

Wherever risk enters in modern life, companies are organized to offer an escape from it through insurance even before enough data have been collected to make possible the accurate prediction of the amount of loss. In addition to life insurance we have indemnity in case of sickness, accident, destruction by fire, wind, hail, explosions of boilers or fly wheels, broken windows, and loss from burglary or the unfaithfulness of employees. Liability insurance in over a dozen different forms guards against loss from damage suits. It is impossible to take up the problems that are peculiar to each one of these branches, but we note the leading features of the most important branch in life insurance.

LIFE INSURANCE

Life Tables. — A life table or mortality table shows how many of a large group of persons of the same age will survive to each higher age. A number of these tables have been calculated, but the one generally used in this country is the American Experience Mortality table, a portion of which is here reproduced: —

AGE	LIVING AT BEGINNING OF YEAR	DYING DURING THE YEAR
10	100,000	749
11	99,251	746
12	98,505	743
13	97,762	740
14	97,022	737
15	96,285	735
16	95,550	732
17	94,818	729
18	94,089	727
19	93,362	725
*	*	*
90	847	385
91	462	246
92	216	137
93	79	58
94	21	18
95	3	3

With such data and with an assumed rate of interest and expenses, it is possible to say with considerable certainty how much money must be collected from the policy holders in order to pay each one $1000 or other sum at death.

Premium Plans. — It would be possible to collect from those surviving at each age enough money to pay for the deaths that would happen during the ensuing year. This *step rate plan* would mean in the later years of the table a larger and larger assessment; that is, at the time when the earning power of the insured was declining. It has become customary to arrange the payments on what is known as the *level premium plan*, the same annual payment being made throughout the life of the policy. This payment may be on the *ordinary life plan*, that is, the payments continue throughout life; or ten, fifteen, or twenty *limited payments* may be made, the policy continuing in force for life; or the insurance may be for only a *term* of years during which the premiums are paid, the insurance ceasing entirely at the end of the term. This is the cheapest kind of insurance, for the insurance company knows that many of the insured will survive beyond the term, and to them no payment need be made, but when the insurance continues for life, the payment becomes a certainty in every case.

The Reserve. — If a level premium is charged, the income of the company in the earlier years exceeds its current mortality requirements. The portions of the premium not currently used must be held for the credit of the policy holders until the later years, a certain rate of interest being allowed. This accumulating fund is known as the *reserve.*

Surplus. — If the insured die less rapidly than was assumed by the company in calculating its premiums, more money will be collected than is necessary to meet the obligations of the insurance contracts. This is one source of *surplus.* Again, the funds held in trust by the company may be invested at a higher rate of interest than was assumed in the calculations, and this is a second source of surplus. A third source of surplus is in keeping expenses below what was assumed in the calculations. (The addition which is made to the net premium to cover expenses is called "loading," and is commonly not far from a third of the net premium.) The amounts paid in by those who lapse or surrender their policies do not all go to the surplus, for it is customary now to allow surrender values and paid-up insurance, but as these values are subject to a surrender charge, there is an addition to the surplus from the surrendered or lapsed policies, although the companies try to discourage lapsing. Out of this surplus are paid the dividends on the capital stock, if there be any, and the dividends to each policy holder, which in some cases are credited or paid annually to each policy holder, or in other cases not until the expiration of a period of years.

Endowments. — What is ordinarily called an endowment policy is a combination of two distinct forms of contract. A simple life insurance contract promises to pay the insured a certain sum in the event of death; a *pure endowment* contract would pay a certain sum if the holder of the policy survives after a period of years. A twenty-year so-called "endowment" policy combining these two features means that payment would be made at death if that occurred within the twenty years, or at the expiration of twenty years if the policy holder survives.

This form of policy has been declining in popularity because in its ordinary form it is disadvantageous to the policy holder, unless he be so thriftless that he cannot be induced to save in any other way; also, if insurance could not be obtained in any other way, it might be wise to purchase such a policy, but the objects of saving and insuring can be more cheaply accomplished by separating the two features. If, instead of paying $50 for an endowment policy, the holder paid part of this for term insurance and put the remainder in a savings bank at three or four per cent compound interest, there might be more to his credit whether he lived or died. But when the loading is properly arranged, and with an annual distribution of surplus, the endowment policy performs a useful function as an encouragement of thrift. In fact, a very long term endowment maturing at, say, age sixty-five, would best meet the needs of a great many persons.

These points will be made clearer by the following illustration of what becomes of the premium in the case of a ten-year endowment policy at age thirty-five with a premium of $107.70, when it is assumed that the mortality will be in accordance with the American Experience Table, that the company will earn three per cent on its funds, and that the expense charged each year to this policy will be as given in the following table:[1] —

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[1] Report of the Wisconsin Joint Legislative Investigating Committee, 1906, p. 153.

POLICY YEAR	EXPENSE CHARGE	MORTALITY CHARGE	DEPOSIT
1	$18.40	$7.96	$81.34
2	18.40	7.31	165.77
3	18.40	6.62	253.42
4	18.40	5.89	344.43
5	18.40	5.10	438.96
6	18.40	4.26	537.17
7	18.40	3.32	639.27
8	18.40	2.32	745.43
9	18.40	1.21	855.89
10	18.40	....	970.87
Totals	184.00	43.99	

Industrial Insurance. — The business of insuring the lives of workingmen in this country is characterized by the small amount of the average policy, the large number of lapses, and the heavy expense of solicitation. These companies say the workingman is so thriftless that it is necessary to collect the premiums through a house to house canvass by agents. The hesitancy shown by workingmen to insure in these companies is considered by some persons, however, as an evidence of their thrift. Which is the correct view will be shown by the results of an experiment which is now being tried in the state of Massachusetts. Savings banks have been authorized to organize insurance departments and to sell life insurance, but without employing paid agents or solicitors. The workingman is expected to go to the bank of his own accord. The whole system is supervised by a State Actuary and a State Medical Director, and the safety of the plan is assured by a guarantee fund. Three forms of policies, limited to $500, are provided for: ordinary life insurance, endowment, and a combination of life insurance and old-age annuity. This plan may prove to be a solution of the problem of old age pensions.

State Insurance. — Insurance is well adapted to direct management by the State because the actual conduct of the business is of a relatively simple and routine character and because the State can offer greater security and can command greater confidence than is possible in the case of a private corporation. Competition has had the effect of causing rival companies to invent many outwardly attractive combinations of policy conditions, but on the whole it has increased rather than decreased the expense of doing the business. When the State enters the field simply as an additional competitor, as in New Zealand, its full advantage is not apparent; but if it has a monopoly of the business and compels every one to insure, it perhaps can, without any selection of risks, effect the insurance at a lower price than is asked by any existing private company.[1] These considerations, however, can hardly be taken as sufficient arguments for the present assumption of insurance functions by the State.

State Regulation. — Following the example of Massachusetts in 1858, other states have appointed insurance commissioners for the supervision of this business, and the insurance laws of a single one of these states are now sufficient to make a good-sized volume. Insurance companies have found this variety of control irksome and have generally advocated federal control of insurance. Although something would be gained, it cannot be said that there is any great need of federal control of life insurance, not to mention the constitutional difficulties, because it is not absolutely necessary, as in transportation or fire insurance, that one life company do business in many states, and the people of each state should have the right to say what kind of insurance institutions they desire to have.

An enumeration of the requirements in the state of New York will illustrate the nature of state regulation: A certificate of authorization must be obtained from the Superintendent of Insurance and a deposit of securities must be made. A minimum capital stock is prescribed and regulations are made concerning the investment of stock and surplus. There are also provisions relating to standard of solvency, reinsurance, limitation of risks, admission of foreign companies, examination of accounts, and annual reports. The policy must contain the entire contract, and the statements are to be taken as representations and not warranties. No misleading estimates and deceptive statements are to be issued for the purpose of getting business. Life insurance companies are to do either a participating or non-participating business, and in the former case the surplus must be annually apportioned and paid to each policy. There are further provisions regarding the valuation of policies, surrender values, discrimination, election of directors, limitation of the amount of new business each year, limitations as to expenses and salaries of officers, and standard forms of policies are prescribed for both life and fire insurance.[1]

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[1] Consult the article by M. M. Dawson in Bliss, *Encyclopedia of Social Reform*, new ed.

QUESTIONS

1. How do you define insurance?
2. What is a mortality table?
3. How would you find the premium for insuring a group of persons for one year for $1000 each?
4. Distinguish between reserve and surplus.
5. What is a "pure" endowment policy?
6. What are the advantages and objections of assessment insurance?
7. What has been New Zealand's experience with State insurance?
8. What is meant by the "moral hazard"?
9. What are tontine policies?
10. Discuss life insurance investments.

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[1] See Parker, A. J., Jr., *The Insurance Law of New York*, New York, 1907.

CHAPTER XXIX

ECONOMIC ACTIVITIES OF MUNICIPALITIES

Importance of Municipal Activity. — Far reaching as are the economic activities of the state and federal governments, they are surpassed in magnitude, if not in importance, by the similar activities of the municipal governments. Finance statistics furnish a rough measure of the scope of such functions. In 1902, for example, the public debt of the cities, villages, and towns ($1,387,316,976) was greater than the public debt of the county, territorial, state, and national governments combined ($1,356,485,129). The local administrative divisions, moreover, including counties, collect and spend more money year by year than the state and national governments; and taking into account the fact that municipal functions are to a much greater degree economic than the functions of the national government, it is probable that the cities having more than 8000 inhabitants in 1902, with their current expenditures of $551,234,172, really spent more for distinctively economic purposes than the national government, with current expenditures of $617,530,137.

By the use of financial statistics, moreover, we may obtain a rough idea of the relative importance of the economic as compared with the political or social activities of the cities themselves. Recent census bulletins have distinguished the commercial or quasi-economic receipts of cities from the general revenue receipts. In 1902 these commercial receipts constituted 22 per cent of all the revenues in cities containing over 25,000 inhabitants, and 20.7 per cent of the total revenues in cities containing over 8000 but less than 25,000 inhabitants. These figures establish a fair inference that as municipalities increase in size, a larger and larger share of the public activity is devoted to economic services. The same phenomenon appears in the total state, county, and municipal finances of the different sections of the country. Taking the country as a whole and considering all revenues except those received by the national government, 15.6 per cent are derived from commercial sources. In New England, with its high proportion of urban residents, 20.6 per cent of the aggregate revenues are commercial; in the South Central division, with its low percentage of urban population, only 13.3 per cent are commercial. *Generally speaking, the economic activities of the State vary directly as the density of the population.*

Commonplace as such a conclusion may be, it carries with it, nevertheless, a profound significance. City life means crowding, and crowding means greater social friction or greater social solidarity, according as the State fails or succeeds in its task of devising rules by which the swarming city masses may live together, not only in peace and concord, but to better advantage and with greater profit. In the preceding pages we have emphasized again and again the necessity for increased regulation on the part of the State. Many factors coöperate to justify this thesis. But the most powerful factor of all is created by the simple interplay of two economic facts, whose importance can never be overestimated — the growth of urban or semi-urban populations, and the comparative fixity of the territory upon which those populations must dwell and work.

If the position taken above be correct, we have only to glance at the steadily swelling population of our cities to understand why State control either through regulation or ownership must increase. In 1800, four inhabitants out of every one hundred dwelt in a city containing 8000 inhabitants or more. In 1900, thirty-three out of every one hundred inhabitants dwelt in cities of this description. And the movement to the cities still continues. In the states taking an interdecennial census, in 1905, 48.5 per cent of the total population dwelt in the incorporated places having 8000 inhabitants or more (in 1900), while only 45.8 per cent of the population dwelt in the same places in 1900. The increase of the general population of these states between 1900 and 1905 was 9.2 per cent; the increase of their urban population as above defined was 15.2 per cent. In some states, and these perhaps most typical of present tendencies, a large majority of the entire population dwelt in cities of 8000 inhabitants or more, the proportion in 1905 reaching 71.7 per cent in New York, 67.4 per cent in Massachusetts, and 66.4 per cent in Rhode Island. Even in Illinois, a typical state of our greatest agricultural region, more than half the population dwelt in such cities, according to census estimates, in 1906. To-day the city of New York contains a larger population than did the whole United States at the beginning of Washington's first administration; it spends more money than the national government did at any time previous to the Civil War; and its annual budget largely surpasses in amount that of Turkey, Portugal, Austria-Hungary, China, Holland, Norway, or Sweden.

Character of Municipal Activities. — But there is another and a more important reason why the activities of the State must multiply and become increasingly economic as a larger and larger proportion of the population make their homes in the cities. The mere agglomeration of people in a restricted locality creates a vast fund of wealth, which occupies, as it increases, a larger and larger share of the public attention. Land values go up, the streets of the city acquire enormous value, the opportunities of serving the dense city population in a variety of ways multiply; in short, the public domain of the city is enormously enhanced in value, and the city government is forced to give more and more thought to its proper exploitation and development. The typical economic problem of the modern city is summed up in the one word "franchise"; and the municipal franchise is largely a product of mere agglomeration.

This fund of franchise values has perhaps done more than anything else to transform the character of city government. Where the people in their collective capacity have little or no property and are forced to raise all public revenue by taxation, there is likely to be not only a passive and fitful interest in public affairs, but the activity of the government is equally apt to be comprised within very narrow limits. Give the people, however, a public treasure to preserve, a patrimony to protect, valuable franchises to guard from pillage, and exploit for the public profit, and their interest is aroused. The public by very necessity is forced to abandon its old attitude of *laissez-faire*, and do something more than maintain a balance between private interests through its police and courts. It becomes a proprietor; its household, its property, its bank account grow; its interests become more and more economic.

> "In earlier days, even the most elementary public functions were performed by the individual. He paved, cleaned, and lighted the street before his door. He was his own constable. Such health protection as he enjoyed was the result of his own vigilance. Education was conducted at home or by the church. The library was a priestly possession, as was all learning. His house was his castle, even in the midst of the city, and society offered him little save the administration of justice and protection from foreign foes.
>
> "To-day the city protects his life and his property from injury. It safeguards his health in countless ways. It cleans and lights his streets, collects his garbage, supplies him with employees through free employment bureaus. It educates his children, supplies them with books, and in many instances with food. It offers him a library, and through the opening of branches almost brings it to his door. It offers nature in the parks; supplies him with opportunities for recreation and pleasure through concerts, lectures, and the like. It maintains a public market; administers justice; supplies nurses, physicians, and hospital service, as well as a cemetery for burial. It takes the refuse from his door and brings back water, gas, and frequently heat and power at the same time. It inspects his food, protects his life and that of his children through public oversight of the conditions of factory labor. It safeguards him from contagious disease, facilitates communication upon the streets, and in some instances offers opportunities for higher technical and professional education."[1]

We have cited this striking passage in order to bring home vividly to the mind of the reader the fact that the modern city is a vast household, with human wants and interests similar to those which on a more restricted scale absorb the interests of the ordinary householder. It is important, however, to look briefly at municipal activities in a somewhat more prosaic way. If we classify the functions commonly assumed by municipalities either in this country or Europe, paying more attention to the newer and more debatable functions, — because it is these which give rise to real problems, — we find that they fall naturally into the following groups: I. First, the *protective functions*, brought to mind by the police, the courts, the fire department. II. Secondly, those activities devoted to *sanitation and the public health*. These functions, which are exceedingly various, are represented by municipal ownership of slaughterhouses, ice factories, baths, laundries, model tenements, cemeteries, sewers, by municipal garbage removal, street cleaning, hospitals, nurses and doctors, and in a few cities even by the ownership and control of taverns and saloons. III. *Charities and corrections*. This group comprehends not only the almshouses and jails, but the labor colonies and pawn shops which are maintained in a few European cities. IV. *Educational and cultural;* for example, schools, parks, libraries, and museums. V. The activities included in this group are *commercial and developmental*. The educational functions are of course developmental; but the markets, docks, harbors, streets, bridges, employment and statistical bureaus included in this group are maintained more for the purpose of developing industry and trade than the human mind and faculties. VI. *Municipal monopolies; e.g.* water, gas, electric lighting, street railway, telephone companies, and the like.

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[1] Frederic C. Howe, *The City the Hope of Democracy*, pp. 28, 29.

Before considering the unsettled municipal problems which center chiefly around the activities classified in V and VI, let us examine briefly the characteristics of the more economic and commercial functions which have been generally assumed by American municipalities. Wharves and docks, ferries and quays, have been acquired and their operation undertaken by the public, because trade and commerce, *in general*, *the whole business of the city*, are intimately dependent upon their proper management in the public interest, while at the same time they give rise to no intricate technical or administrative problems. Much the same characteristics mark highways, bridges, and canals. A few years ago many of the highways were privately owned. The State took them over, because the payment of tolls was exceedingly inconvenient and hampered commerce, because the question of price or profit was insignificant in comparison with the general public importance of free communication, and because the management of highways and bridges is comparatively easy and simple. Waterworks likewise are owned and satisfactorily managed by most of the larger American municipalities. Here again the reasons are clear. As in the case of streets and roads, the public health and convenience are so overwhelmingly important in this connection that the question of price and profit becomes of secondary importance, while the operation of the industry itself is simple and easy, although the installation of the plant may acquire enormous capital and great engineering skill.

All these quasi-commercial undertakings, then, which have been generally assumed by American municipalities are characterized by five important qualities: (*a*) all of them are natural monopolies; (*b*) the interest of practically the whole community is vitally dependent upon their proper operation; (*c*) because they touch the consumer and taxpayer so constantly, the quality of the service is incessantly subjected to the criticism of taxpayers and voters; (*d*) in all of them profit and price per unit of service are secondary considerations, wholly outweighed by larger considerations of public health or convenience, and (*e*) all of them possess the "invariable routine-like character" which Jevons mentions, and are capable of operation by simple, general rules.

The Present Problem. — These five criteria of public industries may be used affirmatively, but not negatively; *i.e.* it is logical to conclude that any industry which possesses these qualifications may with safety be assumed by the public, but it is illogical to infer that any industry which does not possess all of them must be left to private management. Indeed, the burning question of to-day is just this: whether street railways which are not easily managed, and lighting plants or telephone systems which are neither capable of operation by simple rules nor so vitally connected with the public welfare as water companies or streets and bridges, should be municipalized. Before discussing municipal ownership and management, however, it is necessary to consider the alternatives which have been suggested.

Protection through Competition. — We mention the discarded idea that good service and reasonable prices will be secured by the pressure of competition, merely to emphasize the progress that has been made in the past few years. A generation ago, the belief was still prevalent that competition would protect the public from extortion. To-day, it is everywhere admitted that the public industries which we are discussing are municipal monopolies above and beyond competitive control. Consolidation of competing companies is the recognized rule. Practically all the street railway lines have been brought under one control in Brooklyn, Baltimore, Boston, Philadelphia, Buffalo, Cincinnati, Pittsburg; and in other cities where the control is not absolutely unified, there are likely to be only two or three systems and these working in harmony and coöperation. In 1890 more than three fourths of the street railway companies had less than ten miles of line, and together such small lines represented more than two fifths of the total mileage of the country. In 1902, however, less than half of the companies operated less than ten miles of line, and in all, such small lines represented less than one eighth of the total mileage. In 1890, moreover, only two companies had lines exceeding one hundred miles in length, and their combined mileage was less than one twentieth of the total. In 1892, twenty-five railways exceeded this limit, and together they embraced more than one fourth of the total mileage of the country.[1]

Moreover, there has been a consolidation of ownership similar to the consolidation of plants. Great syndicates have been formed, which operate in many cities and often control the gas and electric plants as well as the street railway systems. Such combinations exist in Pittsburg, Baltimore, and many other cities. "The Interstate Railways Company, which succeeded the United Power and Transportation Company in 1902, controls about fifteen street railway systems in Pennsylvania, New Jersey, and Delaware, together with two electric light companies. It has also acquired the stock and franchises of numerous new railway companies. Some of the lines controlled are more or less closely connected, and others may be brought into connection later, but the primary purpose has been, apparently, not so much to make a single great system as to provide a convenient form of investment. The American Railways Company of Philadelphia controls eight or nine widely separated street railways and lighting plants in Ohio, Illinois, New Jersey, and Pennsylvania, and also a minority interest in the stock of the Chicago Union Traction Company. The Railways Company General controls stocks of seven railway lines, and lighting plants in New York, Pennsylvania, and Michigan."[1]

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[1] Special Census Report, Street and Electric Railways, p. 121.

The franchises now in the possession of these large combinations are of enormous value. In the early part of this chapter attention was called to the stupendous size of the American municipal debt, amounting in 1902 to $1,387,316,976. The municipal franchises now in possession of private corporations, according to trustworthy computations, exceed in value the enormous debt of our cities; so that if the latter had undertaken these services themselves, managed them as efficiently as the private companies, and charged the same prices, they would now possess assets in excess of their fiscal obligations. Indeed, in many of the larger cities of this country, the franchises of the street railway companies alone exceed in value the whole municipal debt.

So rapid has the movement of monopoly been in the industries under consideration, so deeply has the eager struggle for these great franchise values corrupted city government, that one no longer hears of regulation through competition. The private corporations themselves admit to-day not only that services and prices must be regulated by the public, but that their business must be taken out of politics. The question has ceased to be: Shall public utilities be controlled? It has become: Can they be controlled by anything short of municipal ownership and management?

Methods of Public Regulation. — The alternative most frequently suggested is public regulation. There are many kinds of regulation, and one of these we have had, potentially at least, during the entire period in which our cities have been pillaged and our municipal councils corrupted. All the time this has been going on, the state legislatures have had the right to regulate, if they saw fit; but they seldom saw fit. General regulation thus amounts to nothing. Special methods and special machinery must be devised, if regulation is to be made effective.

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[1] A description of the extent of such combinations together with other suggestive details may be found in Chapter VIII of the Census Report, Street and Electric Railways, from which the above quotation is taken.

The second method we may for brevity call the Commission Method, although the mere fact that there is to be a commission amounts to little, while the character of the men on the commission and the manner in which they are to conduct their regulation amounts to a very great deal. Adequate regulation through a commission, to our mind, contemplates the following specific provisions: (*a*) That cities, at least of the larger size, shall be permitted either to undertake and manage public utilities on their own account, to sell or rent franchises on the best terms, or condemn and purchase under the power of eminent domain the existing franchises and property of public utility companies possessing perpetual franchises; (*b*) that, whether under public or private management, public utilities shall, so far as possible, be strictly monopolized, or in other words, there shall hereafter be no unnecessary duplication of plant for which consumers are forced to pay; (*c*) that the service and charges of both public and private plants shall be reasonable, any group (say of twenty-five consumers) having the right to test such reasonableness before the commission; (*d*) that to secure the necessary basis for a judgment of what constitutes reasonableness, the commission shall make a valuation of all public utilities; (*e*) and thereafter exercise a strict control over extensions, improvements, and the issue of new securities; (*f*) that the commission shall inspect the service or products of public utility companies and shall introduce a system of uniform accounting in both public and private companies; (*g*) and publish annually, or at shorter periods, comparative statistics of revenue, cost, and service, in order that the efficiency of public and private service may be contrasted.

This last provision of publicity is exceedingly important. It will not only spur both private and public companies to make as good a record as possible, but will exercise a most wholesome influence upon the commission itself. In Massachusetts, for example, the Board of Gas and Electric Light Commissioners has been severely censured in the past for its secrecy and failure to publish the data by which a judgment could be rendered concerning the reasonableness of the charges of private companies. "If the Board," a prominent newspaper once said, "is empowered to keep secret what information it is pleased to, how are people to know that they may not become a mere agency of the monopolies to cover up and justify their possible undue exactions." With publicity of a really adequate kind, this criticism never would have been made.

An exceedingly important part of the scheme of regulation is that just as many difficulties as possible shall be anticipated and specifically arranged for in the original charter. Regulation thus becomes largely an interpretation of accepted principles, not the formulation of principles *de novo*. New York City, for instance, used its credit to secure the construction of the subway and then leased it to the Interborough Rapid Transit Company on such terms that in fifty years the principal and interest of the debt will have been paid, and the city will own the subway practically without expense. Another illustration of the favorable terms which a city may secure by careful bargaining is found in the arrangement which the city of Chicago made in 1907 with the Chicago City Railway and the Chicago Union Traction Company. The companies not only agreed to rebuild and improve the whole street railway system, to provide new through routes and additional transfers, and to operate under a license revocable at any time by the city upon payment of the agreed value of the roads plus the cost of improvements, but the city is to exercise a large degree of control over the frequency of the service and supervise rigidly the accounts of the company, while all profits above 5 per cent on the actual investment are to be shared between the city and the railways, 55 per cent to the former and 45 per cent to the latter.[1]

We cite these examples partially to show that our cities are gradually learning to drive better bargains with the corporations than in the past, but principally to emphasize the fact that such freedom of contract would be perfectly possible under the commission form of regulation, and would at the same time facilitate the work of such a commission. We confess to serious doubts about the practicability of any kind of regulation that depends upon vague generalities, in which the words "reasonable," "just," and "equitable" frequently appear, without definition of what constitutes "reasonableness" or "equity."

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[1] In speaking of these terms as "favorable," we merely mean more advantageous to the city than has usually characterized the franchise grants of the past. In this particular case it is possible that Chicago might have obtained even better terms, or that municipal ownership and management might have been the wisest solution of the problem.

In the long run we believe that more cities will get four-cent fares and seventy-five cent gas by bargaining with the private companies over franchise grants than through the investigations and decrees of commissions. The latter may reasonably be expected to secure better service, abolish discrimination, — which is far more prevalent among municipal utility companies than most people realize, — and prevent stock watering, bribery of aldermen, and adulteration of products, such as gas. But the natural conservatism of such commissions is likely to render them slow in materially reducing rates. For this reason municipal councils should be permitted to drive the best possible bargains with utility companies in granting franchises; though such franchises should be subject to the approval of the commission itself. There is no reason to fear that the commission would veto franchises unusually favorable to the people, although it could be depended upon to protect the people against palpably unfavorable grants. Finally, it is particularly desirable that franchise grants should provide for the settlement of labor disputes by collective bargaining and arbitration. A clause of this kind is found in the franchise granted to the Seattle Electric Company, June 26, 1907.

Private operation under the regulation of a commission has many possibilities of good. Its great advantage, in the opinion of many persons, probably a majority of persons, is that it preserves what they believe to be the superior progressivity, cheapness, and efficiency of private management. We confess to more doubt about the ultimate success of "commission government" than most economists entertain. The tasks which confront such commissions are stupendous, and the expense of conducting their work — when it is properly conducted — is enormous. It is stated, for instance, that the public service commission of New York City is spending at the present time about one million dollars a year. On the whole, however, it is fortunate that the public have resolved to give this method of reform a thorough trial. It seems to be the next logical step in the evolution of the natural monopoly, and does not appear to be attended with any grave danger. If it fails, it will have at least trained up a corps of public servants thoroughly familiar with the operation of public utility enterprises, and will, at the same time, have thoroughly convinced the people that there is no other alternative but public ownership and operation.

Municipal Management. — In discussing this important topic, it will be possible to cover only the fundamental considerations involved, neglecting the minor issues which are frequently emphasized, but which will exercise in the final decision of the problem only that amount of weight which their importance justifies. For instance, one of the current objections to municipal ownership is the alleged difficulty that will arise in projecting city lines into suburban territory under township or county government. "Suppose," it is asked, "that the county refuses to allow the city to extend its lines; how will the inhabitants of the city secure that ready access to the surrounding country districts which constitutes one of the most valuable features of street-railway transportation?" The answer is that in a large majority of cases the county will be more than willing to grant this extension on reasonable terms, and in the rare case in which a county out of malicious spite refuses to grant a franchise to a city railway, the state legislature or state commission will compel the grant on proper terms. This objection to municipal management is noticed merely to illustrate a large number of minor considerations which will take care of themselves, if the important issues are properly decided.

More important than the secondary considerations just mentioned, but still unavailable for our purposes, are the results secured by comparing private with municipal management in Great Britain, or in the United States. In the United Kingdom, for instance, in 1904, 162 of the tramways with 1148 miles of track were owned by local governments, as compared with 150 tramways with 692 miles of track owned by private companies. In 1903, 256 gas plants were owned by British cities as against 454 private companies authorized to engage in the gas business, while the cities supplied more consumers and charged on the average lower rates than the private companies. Similarly, in the United States, a large majority of the water works are now owned by municipalities, while in 1902 the municipalities owned 815 out of the 3620 central electrical stations, employing 2467 out of the 23,330 wage earners employed, and supplying 195,904,439 out of the aggregate 2,507,051,115 kilowatt hours of power. At first blush, it would appear that the safest arguments for or against municipal ownership might be derived from a comparative study of municipal and private operation. Such, however, is not the case. Owing to the predominating importance of technical questions in such comparisons, none but expert engineers or accountants are competent to draw conclusions, and unfortunately the conclusions of the experts are in hopeless conflict. The expert representatives of the private companies return from their study of public management with their opinions unchanged; while the expert defendants of municipal ownership find in the results of English or American municipalization little but confirmation of their existing opinions. In fact, we are forced back upon more or less general considerations.

If we carefully examine the important arguments in favor of municipal management, we shall find that many of them assume that regulation of the character previously described is impossible. (*a*) The most emphasis is placed by defendants of municipal management upon the fact that private ownership in the past has resulted in widespread political corruption. No one, to-day, denies this truth. But never in the past have we attempted the kind of regulation which we may expect in the future, and which has already been started, though not perfected, in the states of New York and Wisconsin. This species of regulation contemplates a valuation of public and private plants, with prevention of stock watering and reduction of profits to a reasonable level. If we can sell or rent franchises (not give them away), prevent the capitalization of excessive profits, and keep dividends on a rational basis, the *raison d'être* of bribery and corruption disappears. Corporations cannot afford to pay bribes for the opportunity of earning reasonable profits.

(*b*) The second great argument for municipal management is that it will improve the public service by increasing its extent, dignity, and importance. This position is probably well taken. The supreme necessity for judicial purity has given us pure courts. The supreme necessity for decent management of public utilities, if they were undertaken by our municipal governments, would, it is probable, give us decent management. Certainly, at least, every one agrees that it would be suicidal to introduce municipal management without putting it on a civil service basis.

(*c*) The next characteristic of public industry is as often cited against as in favor of municipal management. Except for high-class salaried men, where the reverse is true, the State treats its employees unusually well, paying larger wages for shorter hours of labor than most private employers. This will appear as a virtue or defect, according to our viewpoint. If we believe that the State should be a model employer, and pay fair living wages whether private employers do so or not, this characteristic of municipal management will appear as a strong reason for its introduction. If, on the other hand, we concentrate our thoughts on cheapness of production, and neglect all considerations of the welfare of the producers, we must score a point under this head in favor of private operation.

(*d*) One of the strongest charges against municipal ownership is based upon the fairness and humanity which the State shows in dealing with its employees. It is charged that such treatment tends to corrupt the public servant, and to destroy his political independence, making him a subservient henchman and supporter of the administration under which he happens to be working. That there is danger of such "pernicious activity" on the part of office holders, no reasonable student of public affairs will deny. In the recent Chicago city campaign, when, as it happened, municipal ownership was the burning issue, the head of the police department attempted, and partially succeeded, in forcing almost the entire police force to work for the election of one of the candidates. But this candidate was defeated, despite the police, and the police official is at the present writing under criminal indictment.

This rebuke of police interference is of crucial import. It calls attention to the fact that American voters have learned to resent such interference. In scores of city elections in the last five years the independent political sense of the people has triumphed over office-holding cliques who attempted to perpetuate their sway; and not only has the electorate shown its ability to control the office holders, but with every year it has become more and more difficult for political bosses to dictate to the office holders themselves. Without civil service, of course, municipal management is unworthy of consideration. With it, however, the whole sting of this criticism vanishes. Not only will public employees cease to be of one political faith, but the better conditions of employment offered by the State will probably cease to make a petty grafter of the public employee. The reason for the last statement is plain. If the State pays $4.00 a day for carpenters, while private employers offer but $3.00, the $1.00 difference may have either of two effects: under the spoils system, it will go to indifferent or average workmen in the form of a pauperizing bounty; but under the merit system, it will bring to the State the best skill in the occupation. Better conditions of employment, where the merit system prevails, merely "concentrate competition upon efficiency."

Moreover, it may be remarked that it is not open to opponents of municipal ownership to assert that: "all this argument presupposes appointment by merit, but we have not yet succeeded in introducing the merit system." Such an argument may be turned against its supporters by the countercharge, which is equally true, that we have not yet succeeded in introducing the advanced form of public regulation which is the only salvation and the last defense of the adherents of private management. In point of fact, the whole discussion of municipal management presupposes certain reasonable improvements both in the character of public regulation and the character of the public service; for unless we can regulate public utility companies far more satisfactorily than we have done in the past, we shall unquestionably and inevitably come to municipal management.

(*e*) Finally, there is another fundamental characteristic of public management which we shall regard as a virtue or defect according to our political philosophy. Under private ownership, prices are determined by considerations of profit; and persons who cannot afford to pay the price of the service must go without it, although they may be sadly in need of it. Under public management, however, rates are determined by general social utility and are frequently placed at less than the cost of services. Where this happens, part of the expense of maintaining the industry falls upon the general body of taxpayers, and it must be remembered in this connection that probably a majority of the voters of the present time pay no direct taxes. To persons of broad social sympathies, confident of the honesty of democracy and anxious to turn the powers of the State to ameliorating the lot of the poor and unfortunate, this prospect of modifying charges by considerations of social policy offers no terrors. To reduce street-car fares, for instance, during the hours when our poorly paid workmen are riding to their work, and in general to adjust prices so as to subserve the highest social welfare, appears as an honorable opportunity, not as a dishonorable temptation. To persons of a harsher social creed and a more pessimistic social philosophy, however, the adjustment of rates to the greatest good of the greatest number seems pernicious and dangerous.

Whether public management can fairly be expected to be as efficient and progressive as private management is a question which does not lend itself to brief discussion. At present, however, we are unquestionably in an experimental stage; and it is desirable not only that the commission plan shall be given a thorough trial, but that public ownership and operation shall be tested under such conditions as to enable an intelligent comparison to be made with the results of private management. States having a commission empowered to enforce uniform accounting will constitute great economic laboratories in this connection during the next quarter of a century. In the end, however, it may be that less emphasis will be placed upon cost of service and more emphasis upon considerations of general social welfare than is now done. Even if it shall transpire that private management under a state commission is cheaper and more progressive than public management, the latter will still have a strong case in the plea that it adapts the service to the greatest social welfare, abolishes the struggle between the franchise corporations and the public, dignifies municipal government, and, by enlarging the public interests of the people, breeds in them a finer spirit of coöperation and a deeper sense of social solidarity. At bottom this question is not so much economic as social; and in the end that method of management will prevail that best subserves the social well-being, not that method of management which is cheapest.

Municipal Home Rule. — The problem of municipal ownership, as has been suggested, presents a contest between the highest form of regulation which we can reasonably expect *versus* the best species of municipal management which we are justified in anticipating. It is a conflict of potentialities. Whatever its outcome, there is one important step which should be taken at once: cities should be endowed with the power of introducing municipal management, if they wish to try the experiment. In many cities to-day private corporations have secured, often by bribery, perpetual franchises in which rates and other conditions are authorized that are manifestly unjust to the public. In such a situation the city can do nothing but condemn, or threaten to condemn, the franchise and property under its powers of eminent domain. Municipal ownership, or the threat of municipal ownership, under which the corporation might possibly acquiesce in reasonable regulation, offers the only remedy for this condition of affairs.

Worse than the above situation, however, is the utter helplessness of those city governments which can neither undertake the operation of public utilities themselves, nor regulate the rates and service of the private companies which control them; while the state legislature, which has retained the power of regulation, does nothing. This deadlock delivers over the city bound and captive into the hands of the corporations. Even if the city decides to sell or rent its new franchises, even if it prefers the conservative policy of private management, it cannot dispose of its valuable rights to the best advantage, unless it possesses the alternative of public management with which to force the hand of the corporation. It is sometimes thought that by offering franchises to the highest bidder, competition among private corporations will bring reasonable and remunerative offers. This, however, is not the case. The only bidder in most instances is the corporation already in power, and where competitive bidding is required by law, "the local governments have obtained no more favorable terms than were prescribed as a minimum by state or local legislation. The reason is obvious. The proposed franchise is almost invariably petitioned for in the first instance by a duly organized corporation, which asks the right to occupy specifically named streets, and which has carefully considered, in advance, construction plans and probably financial results. Even when a considerable period of time is allowed for others to investigate the proposed plan and to estimate the value of the franchise, these possible competitors are at a great disadvantage as compared with the original promoters. It often happens that there are few people in a city who are familiar with the street-railway business and at the same time in command of the necessary capital. Effective competition is still less likely when the proposed railway is in the nature of an extension or outlying line, the success of which will depend almost wholly upon coöperation with existing lines. The process of consolidation among street railways has gone so far in most large cities that there is only one important system in existence with which a new railway can be connected."[1]

QUESTIONS

1. What connection is there between governmental activity and population? Explain.

2. What is the essential characteristic of municipal government?

3. Classify the functions commonly exercised by cities, and enumerate the most significant characteristics which they possess in common.

4. What has been the most fertile source of political corruption in cities? Would it disappear with adequate regulation?

5. Why has general regulation been ineffective?

6. Under a system of adequate regulation, would it be desirable to encourage monopoly by chartering only one company with an indeterminate franchise? Why?

7. Is it desirable that charters should contain specific provisions respecting taxes, rates, and quality of service? Why?

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[1] Census Report, "Street and Electric Railways, 1902," p. 128.

8. Under a proper system of regulation, would the increase in franchise values owing to growth of population and wealth (the unearned increment) benefit the public or the private company?

9. Would municipal plants pay taxes under existing tax laws? Should they pay such taxes?

10. Assuming that the poorer classes pay a larger share of their income for street-railway transportation than the wealthier classes, would it be desirable for private companies to earn large profits, even if such profits were turned over in whole or part to the city government?

11. Under the same hypothesis, would it be legitimate for a municipal street railway to charge passengers less than cost, meeting the deficit by tax levies?

12. What advantages are possible from municipal management that cannot be secured from private operation under good regulation?

13. Why should municipalities be granted the option of acquiring and managing the public utilities?

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CHAPTER XXX

SOCIALISM

Socialism Defined. — Socialists seek the establishment of industrial democracy through the instrumentality of the State. Our political organization is to become also an economic industrial organization. Socialism contemplates an expansion of the business functions of government until the more important businesses are absorbed. Private property in profit-producing capital and rent-producing land is to be abolished. Socialists make no war upon capital; what they object to is the private capitalist. They desire to socialize capital and to abolish capitalists as a distinct class. Their ideal, then, is not, as is supposed by the uninformed, an equal division of existing wealth, but a change in the fundamental conditions governing the acquisition of incomes.

Socialists usually say that labor creates all wealth. No rational socialist means thereby to deny that land and capital are factors of production, but as these are passive factors, they hold that their owners ought not to receive a share of the product unless they personally are useful members of the community. Labor is the active factor, and all production is carried on for the sake of man. Land and capital are simply the tools of man. Socialists admit that the owners of these tools must receive a return for them when industry is organized as it is now; hence they desire that these tools should become public property. They wish to make of universal application the command of the Apostle Paul, "If a man will not work, neither let him eat."

Distributive Justice. — Socialists, in common with a great many other people who do not accept their attitude toward the organization of industry, desire distributive justice. As to what constitutes justice they are not wholly agreed, but there is among them a tendency to accept equality or needs as a basis rather than productivity. Some, it is true, have advocated an almost mechanical equality, but most socialists to-day would regard the question of a precise standard for the distribution of income as not of present importance. They are simply agreed in this, that the distribution of the present day is wholly unjust. They think that men to-day do not have equal chances in life, that there is too much privilege. The big rewards, they think, to-day go to those who are shrewd and cunning, who are skillful in manipulating stocks and bonds, or who are favored by inheritance with a good start, rather than to those who render great social service. The inventors, poets, authors, scientists, skilled mechanics, and factory managers, they allege, are the large producers, but they do not get the big prizes.

6 **Varieties of Socialism.** — The foregoing characterization applies to most persons who have been called socialists, but the genus contains a number of species which should be distinguished.

(1) One group has been called "Utopian." There are those who might object to this term on the ground that all of them are utopian. Nevertheless, some are more so than others. This first group contains those who have become impressed with the evils of the present competitive system and propose the collective ownership of the means of production as a remedy, in much the same spirit with which a physician writes a prescription to cure his patient. There have been many attempts to picture to us how smoothly things would proceed if men could only be persuaded to try the collective ownership of land and capital. As a type of this class we may take Robert Owen. His life was contemporaneous with the Industrial Revolution in England, he himself being a successful manufacturer. He saw with his own eyes the evils of unrestricted competition, and was filled with an earnest desire to better the condition of the working classes. He is remembered as a factory reformer and promoter of voluntary coöperation, but yet he regarded these efforts as not sufficiently radical. He thought human nature must be reformed by careful training from childhood in an atmosphere of association, instead of the self-seeking, commercial atmosphere which surrounded him. He spent his large fortune in an attempt to carry out his ideas regarding the reconstruction of society. Among his projects was the founding

of a colony at New Harmony, Indiana, where no private property or competition should exist. After a continuance of two years, the experiment ended, as most other similar enterprises have, a complete failure. In this group would also be placed Saint-Simon, Fourier, Cabet, Blanc,[1] and Bellamy.

(2) The "Marxian" socialists call themselves "scientific," as distinguished from the idealistic writers just mentioned. They insist that they have no cure-all for the ills of society. Socialism in their eyes is, in the main, only an explanation of what is happening. The private capitalistic system is breaking down, they say, and the logical result must be the collective ownership of the means of production as the next stage in social evolution. They say that setting aside all question of "ought" or "desirability," collective ownership is coming, and we might as well adjust ourselves to it. The four leading features of the Marxian philosophy are: (*a*) the study of society as an evolutionary product; (*b*) the economic interpretation of history, according to which our whole social life, including our ideas concerning religion, art, marriage, etc., are but a reflex of past and present economic conditions; (*c*) the doctrine of surplus value, according to which the income of the capitalist class does not represent a return for abstinence, but results from the fact that through their ownership of the means of production they can compel the laboring class to work for them a longer number of hours than is necessary to produce the wages which the laborers receive. What is produced in this additional number of hours is the source of capitalist income; and (*d*) the doctrine of the class struggle, which finds a deep antagonism between the capitalist class and the laboring class, that can only result in the overthrow of the capitalist class and the triumph of the laboring class. Most socialists now believe that this victory will be won without bloodshed, as a result of a gradual increase in the strength of the socialist party as a political organization.

(3) The Fabian Socialists, of whom the members of the Fabian Society of England are types, have disapproved both of the

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[1] Louis Blanc was less "utopian" than the others. He was transitional and in reality paved the way for the German and later "scientific" movement.

founding of utopian settlements and of the philosophy of Marx. The aim of this society has been to spread socialistic ideas by the dissemination of knowledge on the subject, rather than by an organized political movement, advocating this or that reform as opportunity indicated. The membership has come largely from the educated middle class, and has never been very large, although the society has exercised considerable influence. Practically, some of the conservative members of the Marxian school, such as Bernstein, in Germany, and Jaurès, in France, do not differ greatly from the Fabians.

The following words of Jaurès on the method of realizing the socialist ideal are of interest in this connection: —

> "All Socialists, indeed, some openly, others with infinite precautions, some with a mischievous Viennese good-nature, declare it to be untrue that, taken as a whole, the economic material condition of the proletariat is getting worse and worse. It must be conceded, after taking account of the tendency to sink and the tendency to rise, that in the immediate reality of life, the tendency to sink is not the stronger. Once this has been granted, it is no longer possible to repeat after Marx and Engels that the capitalist system will perish because it does not insure to those whom it exploits the minimum necessities of life. It follows from the same admission that it has also become puerile to expect that an economic cataclysm, menacing the proletariat in its very existence, will bring about, by the revolt of the instinct of self-perservation, the 'violent overthrow of the bourgeoisie.'
>
> "It is not by an unexpected counter-stroke of political agitation that the proletariat will gain supreme power, but by the methodical and legal organization of its own forces under the law of the democracy and universal suffrage. It is not by the collapse of the capitalistic bourgeoisie, but by the growth of the proletariat, that the Communist order will gradually install itself in our society."[1]

(4) The Christian socialists. About the middle of the nineteenth century, such men as Kingsley, Maurice, and Hughes in England were much impressed by the misery of the poor, and they attacked the competitive system as being responsible for the evils which they saw. Voluntary coöperation and the elevation of the workingman's character seemed to them the proper remedies. Thus their theories hardly fall under the head of socialism as we have defined the term. In Germany and France, also, social

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[1] *Studies in Socialism* (trans. by M. Minturn), pp. 167–169.

movements have been organized by adherents of both Protestant and Catholic Churches. In the United States all shades of opinion have been included under Christian socialism, but the term should apply only to those who advocate the collective ownership of the means of production on the ground primarily that this is required by the teaching of the Christian religion.

(5) State socialism is a term frequently used in German discussion to designate those who favor an extension of the economic functions of government without any great change in existing class relations.

(6) "Socialists of the chair" (Kathedersozialismus) refers to the university professors who have advocated State interference with property rights to any extent demanded by public welfare, and have opposed the extreme *laissez-faire* doctrines of the older economists. These men are not to be classed as socialists, the term being used as a reproach by their conservative opponents, and the designation has now chiefly historical significance.

Communism. — Communism was the term employed by Karl Marx to distinguish his own philosophy from the "utopian" schemes of such men as Owen, which he termed socialistic. But to-day the reverse has become the common usage. Communism now very generally signifies the abolition of private property not only in production goods, but also in consumption goods, whereas socialists contemplate the retention of private property in income. In this case there would be provision of private property for every one, and in this respect socialists emphasize and extend the idea of private property.

Socialism an Extension of Existing Institutions. — Our government owns the post office; most governments the telegraph. Nearly all own the wagon roads. Some own the canals and railways. Many governments own factories. Probably every national government does at least a little manufacturing. Most governments cultivate forests, and some cultivate arable land. We have only to imagine an extension of what already exists until government enterprise dominates in manufactures, mining, transportation, commerce, and carries on, in short, most productive enterprises, and we have socialism pure and simple.

But saying that socialism is an extension of existing institutions may lead to a misconception. The elimination of private capitalism is supposed to work a most radical change in many branches of our social life. The commercial spirit would be abolished, and with it all that is dependent upon it. We are trained, it is alleged, to-day from childhood up to try to "make money," and this accentuates the selfish elements in our nature; and it is therefore maintained that our present system does nothing to promote, and does much to hinder, the development of the brotherly spirit.

The Strength of Socialism. — Socialism makes perhaps its strongest claim in its plea, first, for a scientific organization of the productive forces of society, and second, for a just distribution of the annual social income. It is said that the present production of economic goods is small in proportion to population, but the socialist replies, "Naturally enough. Competition is wasteful. Two railways are built where one would suffice. Two trains run parallel between two cities where one would serve the public equally well. Three times as many milk wagons, horses, and drivers are required to serve the people with milk as would suffice if the milk business were organized like the mail distribution in cities. Look at the shops, wholesale and retail, and see the waste of human force. Without competition, the whole dry goods and grocery business could be carried on with a third of the present economic expenditure of force. Reflect on all the idle classes in modern society. Socialism would set everybody to work, and, making each one dependent on his own exertions for success, would stimulate all energies." The argument is a telling one, but it does not prove its point unless we grant that the present waste and idleness cannot be suppressed or greatly diminished without a departure from the fundamental principles of our present industrial order, or that the waste and idleness are not counterbalanced by advantages.

Justice is a strong plea in the socialist philosophy. It cannot be for one moment claimed that each one's income is at present in proportion to his services to humanity. Income in proportion to industrial merit is attractive to an ethical sentiment. But cannot we approximate justice in distribution on the basis of the existing order? There is nothing distinctively socialistic about the desire for distributive justice. It is a feeling that actuates those who work for the control of monopolies and corporations, for tax reform, regulation of inheritances, etc. The socialist simply differs from these people in his method of attaining his ideal.

The socialist criticism of the present régime is especially severe in the matter of unemployment. There are always some men who are able and willing to work, who are out of jobs, and periodically, with the coming of crises and depressions, the lack of employment becomes widespread. There is, of course, no lack of need for additional goods; the difficulty is entirely a matter of business organization. Again, it is urged that to-day goods are made for sale, not for use, as they would be under the socialistic régime. Adulteration, deception, and "cheap and nasty" goods are the direct outcome of a system of private capitalism. In the socialistic state we are told the business of the shopkeeper is to help you find what you really need; at the present time it is to his interest to persuade you to buy what you do not need or what will give him the greatest profit. The spirit of competition is to the socialist simply warfare. In every business establishment a good deal of the most highly paid labor is devoted, not to the production of goods, but to finding a market. Ability to fight one's competitor is quite as essential in business as is the ability to turn out good products.

The Weakness of Socialism. — (1) Strong as may be the foregoing indictment of the existing industrial system, it is not sufficient to indicate that socialism is to be the necessary or the desirable outcome. The modern machine age is little more than a century old, and some of its most important phases are very recent. The dire predictions made by Karl Marx and his followers on the strength of some of the earliest phenomena of the factory system have not been borne out, and similarly the evils of to-day may possibly be very largely eliminated without departing from our fundamental institutions. In short, the first weak point in the socialist's position is that he attempts to predict the course of economic evolution too far in advance. That we shall have a juster distribution of wealth in the future, and that we shall eliminate many of the present wastes of production seems probable, but whether this will be accomplished by a socialistic organization or not, it would be hazardous to predict. It is desirable to have ideals to work toward, but we should not pin our faith now to a future method for attaining them, for no one can say that the collective ownership of all of the important means of production presents a question that needs to be decided now.

(2) The socialist underestimates the efficiency of the present system. To-day there is a premium on energy and thrift. Much may be wasted, but much is also produced. That socialism would result in a larger sum total of goods for consumption has never been proved. But on the other hand, we can say that the present régime is continually offering more and more to the mass of the people. Their standard of life is continually rising. Our economic world is a bettering world.

(3) The socialist is also in other respects too pessimistic with respect to the present. He sees all of the starvation, misery, luxury, and extravagance, but he passes by the millions of happy homes scattered throughout the land. He does not see that the world is full of opportunity for the rising generation, that even if the chance for the ownership of an independent business for the ordinary man is smaller, the things which he can enjoy, if he is of average intelligence and energy, are much greater than ever before in the world's history.

(4) The socialist underestimates the importance of individual responsibility. To-day a man is confronted by the stern necessity of making his own way, and this must have some good effect upon character. On the whole, the lazy and incompetent are sifted out. Bad heredity and a lack of proper training are the cause of a good deal of economic misfortune. It is well to distinguish the criticism here made from the common error of supposing that socialism would necessarily crush individuality, that we must all dress and eat alike, etc.

(5) The socialist underestimates the importance of free enterprise in industry. If a man now believes that he can develop a certain industry that will satisfy important wants of the people in the future, he does not need to secure the consent of some gov-

ernment official to make the experiment. The possibilities of a free and spontaneous development should be safeguarded from governmental routine to every possible extent.

(6) Perhaps the most frequently mentioned objection to socialism is the danger to liberty. Under socialism there would be simply the public sphere of employment, and there is reason to fear that the inability to escape from the public sphere would compel the submission to onerous and tyrannical conditions imposed by the administrative heads of the business in which one might be engaged. The socialists, it is true, have a rejoinder in the fact that this objection refers to liberty in the negative sense rather than in the positive sense of the power to enjoy goods, and yet there are many persons who fear the tyranny of the majority. Those in whose hands centered political and economic control would have tremendous power, however they might be selected or appointed. As in the religious sphere in the past, so in the economic sphere in the future, we may find that compulsory coöperation is incompatible with human nature.

(7) The Marxian socialists may be criticised for the importance which they attach to the economic interpretation of history, for the validity of that proposition does not establish the validity of the socialist contention. If it be true that our social life is a reflex of our economic activity, it still does not necessarily follow that our economic development is going to be such as will land us in socialism. Their doctrine of the class struggle also does not give an accurate account of existing conditions. We have a laboring class and a capitalist class, it is true, but there is also a considerable class, perhaps large enough to hold the balance of power between the other two, which does not sympathize exclusively with either labor or capital.

Social Reform. — There are those who recognize the strength of the socialist's criticism of the existing economic and social order, but who believe it wise to attack the various problems confronting us one at a time. Social reform seems likely to accomplish more valuable results than socialism. We have a monopoly problem before us now. Its solution may involve a considerable extension of government enterprise. Why not concentrate our efforts upon that problem instead of making up our minds now whether some day the greater proportion of the industrial field must be collectively owned and managed?

The Socialist Movement. — In every country of importance at the present time there is an organized socialist movement, and while it may never attain its ideals, it is exercising an important influence on present-day affairs. This is most marked in the case of Germany. Its voting strength has been steadily increasing, although in the last election its representation in the Reichstag was considerably reduced, as shown in the following table: —

	VOTES	REPRESENTATIVES
1878	437,100	9
1881	312,000	12
1884	550,000	24
1887	763,100	11
1890	1,427,300	35
1893	1,786,700	44
1898	2,107,100	56
1903	3,010,800	77[1] 2%
1907	3,251,000	43
1908		54

[1] The membership later rose to 81. The total number of seats in the Reichstag is 397.

Although the official platform of the party adheres strictly to the orthodox Marxian faith, the party itself has worked for many reforms tending to favor the lower classes, and a large element of the party (the "revisionist" wing) is in favor of putting the doctrine of the class struggle and complete collectivism in the background, and laying main emphasis for the present upon social reform. In France there are a number of socialist factions, or various degrees of radicalism, nominally united in one party, the factional strife being one of the prominent characteristics of the movement in that country. Their combined representation in the chamber of deputies is about one seventh of the total membership. A member of the moderate group, Millerand, was made Minister of Commerce (1899) in the Waldeck-Rousseau cabinet. In a number of French municipalities the government is almost completely socialistic in personnel. The result in these cases has been an increased public activity in behalf of workingmen, the poor, and the unfortunate.

In Belgium the success of the socialist party in promoting the coöperative movement has been striking. In England the organized socialistic party had small influence in political affairs until recently, when a "labor group" was organized in Parliament. The Collectivist activity of the London County Council may also be mentioned in this connection. In the United States there are two rival parties, the Socialist party of America and the Socialist Labor party (of declining importance) both having platforms based upon the Marxian philosophy. A number of Milwauk mayors and state legislators have been elected, but there are ~~no~~ 1 socialist representatives in Congress. In 1904 the Presidential Socialist vote was about 3 per cent of the total votes cast.

Socialists have rendered good service by calling attention to social problems, by forcing us to reflect on the condition of the less fortunate classes, by quickening our consciences; also by helping us to form the habit, acquired by few as yet, of looking at all questions from the standpoint of the public welfare and not merely of individual gain; finally, by calling our attention to the nature of the industrial functions of government and helping us to separate rationally the private industrial sphere from the public industrial sphere. A number of questions having no connection with socialism have been, even by socialists, not infrequently associated with it. Atheism and free love may be mentioned. Socialists generally, however, regard religion and marriage as changing institutions.

Anarchism. — In contrast with the socialist, the anarchist holds that the ideal social arrangement is that men should freely and spontaneously form coöperative groups. The anarchists attack government and deny the right of one man to exercise authority over another. Freedom, independence, self-reliance, non-compulsion is what appeals to them. Such an ideal contains nothing reprehensible, but its complete attainment is impossible. Some governmental compulsion seems necessary with human nature as it is or is ever likely to be. The anarchist is not opposed to the principle of association; he simply asks that the association be voluntary. The anarchist ideal is thus portrayed by Kropotkin:—

> "This society will be composed of a multitude of associations federated for all the purposes which require federation; trade federations for productions of all sorts, — agricultural, industrial, intellectual, artistic; communes for consumption, making provision for dwellings, gas-works, supplies of food, sanitary arrangements, etc.; federations of communes, among themselves, and federations of communes with trade organizations; and finally, wider groups covering all the country, or several countries, composed of men who collaborate for the satisfaction of such economic, intellectual, artistic, and moral needs as are not limited to a given territory. All these will combine directly by means of free agreements between them, just as the railway companies or the postal departments of different countries coöperate now, without having a central railway or postal government, — even though the former are actuated by merely egotistic aims, and the latter belong to different and often hostile states; or as meteorologists, the Alpine clubs, the lifeboat stations in Great Britain, the cyclists, the teachers, and so on, combine for all sorts of work in common, for intellectual pursuits or simply for pleasure."[1]

Many persons class anarchists and socialists together as simply dangerous persons. One thing they do have in common, and that is, discontent with existing conditions. Otherwise their views are radically divergent.

Anarchists differ among themselves. The leading "Communist-Anarchist" is Kropotkin, who advocates revolutionary tactics. Bakunine and Stirner have also stood for violence. The "individualistic anarchists," such as Tolstoi and Tucker, pursue a peaceful policy of non-resistance. Godwin and Proudhon may be called anarchistic reformers.

QUESTIONS AND EXERCISES

1. Is the public purchase of a street-railway system socialistic?
2. Does William Morris, in his *News from Nowhere*, picture socialism or anarchism?
3. Compare the Amana Society with the New Harmony Community.
4. What is meant by the economic interpretation of history? Is it accepted by thinkers who are not socialists?
5. What thoughts are common to the various platforms given in the appendices to Ely's *Socialism and Social Reform?*
6. Write a sketch of the life of Josiah Warren.

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[1] *Memoirs of a Revolutionist*, pp. 398–399.

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CHAPTER XXXI

AGRICULTURAL PROBLEMS

The socialistic ideal of a highly centralized and delicately coordinated industrial system, discussed in the preceding chapter, is confronted with a sharp contrast in the agricultural industry as it exists to-day. Even in the most advanced countries, agriculture is still strikingly decentralized, and furnishes at once the best illustration and the most fertile source of economic individualism.

Size of Farms. — Agriculture has never been, and shows no disposition to become, a large-scale industry in the United States. The statistical evidence upon which this assertion rests is presented in compressed form in Table I upon the following page. A comparison of columns 2 and 3 brings out the interesting fact that, in every decade except one since 1850, the number of farms has increased more rapidly than the general population. In 1850 there was one farm for every 16 persons; but one for every 13.3 persons in 1900;[1] one farm for every 14 rural residents (persons outside of cities containing 8000 inhabitants or more) in 1850, but one for every 9 rural residents in 1900. Moreover, there was in 1900 one farm of 50 acres or more for every 13.4 rural residents, thus indicating that the proportionate increase in the number of farms is due " not to the addition of mere potato patches or small tracts of land used incidentally for agricultural purposes, but to a marked increase in the number of real farms. This growth marks an increase among the rural population in the number of farmers whose head members are their own masters, and is a movement toward economic individualism as distinct as the opposite tend-

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[1] The increasing proportion of adult males in the general population somewhat reduces the significance of this statement.

TABLE I

THE INCREASE OF FARMS AND THE CHANGE IN THE AVERAGE SIZE AND VALUE OF FARMS : 1850–1900

CENSUS YEAR	NUMBER OF FARMS	PER CENT INCREASE OF FARMS PER DECADE	PER CENT INCREASE OF POPULATION PER DECADE	AVERAGE NUMBER OF ACRES PER FARM		AVERAGE VALUE PER FARM			PER CENT OF THE VALUE OF ALL FARM PROPERTY IN			(FOR LEADING CROPS) AVERAGE NUMBER OF		
				Total	Improved	All farm property	Farm land with improvements	Implements and machinery	Land and buildings	Implements and machinery	Live stock	Acres to one male worker	Acres to one horse	Horses to one male worker
(Column)	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1900	5,739,657	25.7	20.7	146.6	72.3	$3,574	$2,905	$133	81.3	3.7	15.0	31.0	13.5	2.3
1890	4,564,641	13.9	24.9	136.5	78.3	3,523	2,909	108	82.6	3.1	14.3	27.5	12.4	2.2
1880	4,008,907	50.7	30.1	133.7	71.0	3,038	2,544	101	83.7	3.3	13.0	23.3	13.5	1.7
1870	2,659,985	30.1	22.6	153.3	71.0	3,363	2,799	102	83.2	3.0	13.8	....	....	....
1860	2,044,077	41.1	35.6	199.2	79.8	3,904	3,251	120	83.3	3.1	13.6	....	....	....
1850	1,449,073	....	....	202.6	78.0	2,738	2,258	105	82.5	3.8	13.7	....	....	....

ency in cities toward wage service and dependence upon employers."[1]

Coming back to Table I, we find additional evidence in support of the generalization just quoted. Columns 4 and 5 make it plain that the bonanza farm which once occupied such a prominent place in foreign and socialistic discussions of American agriculture, is an exception which promises to become rarer and not more frequent with the passage of time. Columns 6, 7, and 8 show that the increase in the value of the average farm is trivial — far less than the increase in the wealth of the average member of the agricultural class. Columns 9, 10, and 11 furnish surprising evidence to the effect that the land itself is not absorbing a larger and larger share of the farmer's capital as time passes. Practically the only noticeable change is the increasing importance of live stock on the farm — a change which is regarded by practically every authority as wholesome and encouraging. Finally, columns 12, 13, and 14 reflect in statistical form the growing scarcity of farm labor and the increasing use of farm machinery in the cultivation of the staple crops.

The foregoing statistics are only approximately correct, and conceal a great variety of conflicting movements in different parts of the country. But they represent the true average condition, the real resultant movement; and study of the details furnishes no reason to question the general accuracy of their showing. American agriculture shows no tendency to become either a large scale or a highly capitalized form of industry.

Even Mr. Prothero, as the following quotation shows, has been led into error on this point. "Statistics show that, in a country [the United States] where estates in fee tail are obsolete or abolished by law, where there is no feudal tenure, no primogeniture, no privileged class, — in a country, finally, where the transfer of land is simple, easy, and cheap, — large estates and large farms have become the rule. The United States contain more tenant farmers than any other country in the world, and, where this class exists, those who do the drudgery do not own the land. Land monopoly is becoming the system of America."[2]

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[1] Twelfth Census, "Agriculture," Part I, p. xxxiv.

[2] Prothero, R. E. *The Pioneers and Progress of English Farming* (1888), p. 146.

So much for the size of the farm as it is; the next question concerns the size of the farm as it should be. Would the prosperity of the agricultural classes and the general welfare be increased by expanding or reducing the farm unit, by more or less intensive farming?

Obviously no simple answer can be given to this question. The value of the land or the rent it will bring is perhaps the most important factor: high rental value indicates that the margin of cultivation has been forced to a comparatively low point, and makes it both necessary and profitable to work the land intensively, for the same reason that the owner of a very valuable manufacturing plant is inclined to run it night and day, if possible, in order to reduce that part of the cost of production which represents fixed charges or interest on the capital that is sunk in the enterprise. In addition to the factor of rent, the amount of capital that he can command, the kind of farming in which he is most skilled, the character of the labor he can secure, the proximity of markets, and the adequacy of transportation facilities, all must be taken into account by the individual farmer in determining how large a farm he will attempt to manage and how intensively he will farm it.

Speaking generally, however, two powerful but counteracting
forces can be detected in the agricultural industry, which prevent
the industry from becoming either predominantly intensive or
predominantly extensive. On the one hand, machinery can be 1
employed most advantageously on a comparatively large farm,
and, other things being equal, the use of labor-saving machinery is
desirable. On the other hand, the importance of labor is greater, 2
and the importance of the manager or entrepreneur is less, in agriculture
than in manufactures; and on this account the stimulus
given to the individual laborer by the sense of proprietorship is
a far more potent factor in agriculture than in other industries.
Large factories controlled by one entrepreneur employing hundreds
of dependent workmen have proved economically superior in the
manufacturing industry, because of the possibility of supervising
the labor, checking and measuring its efficiency automatically.
In agriculture, however, technical skill remains far more important
relatively to those commercial or financial talents which distin-

guish the successful employer than in any other great division of production.

This question is primarily one of private profit, which the individual must decide for himself, but the legislator and the scientific student can be of some assistance in helping to develop that most difficult branch of commercial science — farm accounting — and in keeping the farmer alive to those changes in prices, wages, and transportation charges to which the farm organization must adjust itself. On the whole, however, the emphasis is wisely placed by the average educator, at the present time, upon the possibilities and opportunities of more intensive farming. In the past, extensive farming has been, and justifiably so, the rule in this country, and the force of inertia is all directed that way. But the demands of the future will be in the opposite direction. As cities multiply and the market approaches the farm, intensive farming will be forced upon the people, and the readier we are to adapt ourselves to this change, the less will be the friction and loss. Moreover, the ability to earn a living by intensive farming makes it easier to acquire a farm; and we are strongly of the opinion, as will appear hereafter, that widely diffused ownership is better than a general system of tenancy, even where land values are high.

Finally, it may be noted that practically every European country attempts by legislation to increase the number of small holdings; and in a mixed problem of this kind, which is as much psychological and social as strictly economic, the instincts of the majority are likely to have a sound social basis. Even in England, where comparatively large farming has had the greatest opportunity and the most favorable environment, the consensus of opinion seems to favor the encouragement of small holdings. English authorities maintain, as a rule, that a mixed system of large and small farms is the ideal condition, but that at present the emphasis should be placed on intensive farming. In 1889 a Select (British) Committee on the subject recommended unanimously that " the extension of a system of small holdings is a matter of national importance;" and in 1892 Parliament passed the Small Holdings Act which empowers county councils to purchase land and sell or lease it in small holdings. Purchasers were required to pay one fifth of the price on taking possession, and the remainder in fifty years. In the beginning the Act does not appear to have been a glowing success, and by 1903 only 62 small holdings, covering 248 acres, had been sold, and 166 holdings, covering 373 acres, let. Recent amendments of the Act, however, appear to have aroused more interest, and it is now asserted that, "since the passing of the Small Holdings Act, upwards of 47,000 small holdings have been applied for in various parts of the country."[1]

We would not be misunderstood. A universal system of small holdings would be good for no country, as a certain number of large farms, assisted by abundant capital, are needed to set the pace in the improvement of agricultural methods. And in the United States, it is hoped, small holdings on the British scale will not have to be considered for many generations, while we never want the peasant farmer. But we do want the cultivation of that spirit which has made Danish agriculture, in spite of great obstacles, such a marvelous success; and it is imperative to avoid, if we can, the growth of those conditions which have drawn so much of the best rural blood of England to the cities. Both of these objects, we believe, will be measurably advanced by the encouragement of intensive farming.

Ownership and Tenancy. — The essential facts bearing upon the subject of farm ownership and tenure are summarized in Table II, which is presented on the following page.

Section *A* of the table shows that cash and share tenancy are increasing in the United States, and that the proportion of farms operated by their owners was smaller in 1900 than in either 1890 or 1880. Two interpretations of this phenomenon have been advanced. According to the first, which is based partially upon the statistics cited in Section *B* of the table, the growth of tenancy is due primarily to the increasingly rapid rise of farm laborers from the position of wage earner to that of tenant. In this view, accordingly, the increase of tenancy is encouraging. According to the second interpretation, based partially upon the facts presented in Sections *C* and *E*, the growth of tenancy is not an encouraging

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[1] *The Westminster Review*, May, 1908, p. 516. For the history of the legislation, see L. Jebb, *The Small Holdings of England*, Chap. IX.

TABLE II

STATISTICS OF FARM OWNERSHIP AND FARM TENURE IN THE UNITED STATES: 1880–1900

		1900	1890	1880
A	Per cent of farms operated by owners	64.7	71.6	74.5
	Per cent of farms operated by cash tenants	13.1	10.0	8.0
	Per cent of farms operated by share tenants	22.2	18.4	17.5
B	Per cent of males employed in agriculture:			
	Who are owners	42.3	42.0	42.2
	Who are tenants	23.1	16.6	14.5
	Who are laborers and others	34.6	41.4	43.3
C	Per cent of persons owning farm homes:			
	All ages	64.4	65.9	....
	Under 25 years	27.8	32.6	....
	25 to 34 years	45.3	49.8	....
	35 to 44 years	64.4	64.0	....
	45 to 54 years	70.7	72.3	....
	55 years and over	81.4	82.2	....
D	Per cent of owners of rented farms who own:			
	1 farm	80.0	....	....
	2 farms	11.4	....	....
	3 and under 5 farms	5.4	....	....
	5 and under 10 farms	2.3	....	....
	10 and under 20 farms	0.7	....	....
	20 farms and over	0.2	....	....
E	Per cent of farm homes owned:			
	Free	68.9	71.8	....
	Encumbered	31.1	28.2	....
	Encumbered, all ages	31.1	28.2	....
	Encumbered, under 25 years	29.3	21.9	....
	Encumbered, 25 to 34 years	35.5	31.9	....
	Encumbered, 35 to 44 years	36.6	31.8	....
	Encumbered, 45 to 54 years	31.8	30.2	....
	Encumbered, 55 years and over	24.6	22.6	....

A, *B*, and *D* from Twelfth Census, Agriculture, Part I, pp. lxxvii, lxxxviii; *C* and *E* from Twelfth Census, Population, Part II, p. ccxi. The statistics under *B* are in the nature of estimates, a small number of female owners and tenants being included under "laborers and others." The aggregate percentages under *A* differ from those under *C*, owing to the fact that they were collected by different departments of the census, and apply to slightly different areas.

sign, and indicates that it is becoming more and more difficult to acquire ownership of land in this country. The statistics of ownership under *C* prove that there is a steady movement from tenancy to ownership as farmers grow older. More than 70 per cent of the farmers between 45 and 54 years of age, but only 45.3 per cent of those between 25 and 34 years of age, owned the farms which they operated in 1900. This steady advance is encouraging; but the comparison of the figures for 1900 and 1890 indicates that the *rate of advance* is declining. Moreover, the statistics presented in Section *E* show that the proportion of owned farms which were burdened with indebtedness was, for every age group, larger in 1900 than in 1890.

The statistics presented in Table II and the two interpretations of their meaning are not, in reality, inconsistent. Tenancy is more frequent in the South Central and South Atlantic states than in other sections of the country, and more prevalent among negroes than any other class of farmers. Here, evidently, tenancy does represent an advance. The negroes who are tenants to-day were farm laborers a few years ago and slaves a half century back. On the other hand, tenancy is also prevalent and growing in the richest farming district of the country, a district in which farm values are high and advancing very rapidly; and in this district — the North Central states — there is evidence of a close though not perfect correlation between farm values and tenancy.[1]

There is no cause for grave alarm concerning farm tenancy in this country. Although the census of 1900 revealed one landlord who owned 704 farms worth $4,545,230, Section *D* of Table II shows that 80 per cent of the landlords owned only 1 rented farm, and 96.8 per cent less than 5 rented farms; while the additional fact that 78.8 per cent of the landlords lived in the same county in which their farms were located proves that absentee landlordism has not developed to any extent in this country. But we cannot regard present tendencies with all the complacency exhibited by some writers.[2] For not only has it been shown that the increase of tenancy in the North Central states is probably due to the increasing difficulty of acquiring land consequent upon advancing land values; but tenancy is bound to increase as land values advance, unless the American farmer learns how to get a living from smaller holdings. When land goes to $200 an acre, the average young farmer can neither save enough nor command enough credit to buy a farm of 160 acres and equip it properly. We shall have either more tenancy in the older sections of the country, as time passes, or smaller farms and a different type of agriculture. As stated above, the latter change would probably do more good than harm in the land. Our only fear is that the American farmer will not adjust himself to it rapidly enough.

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[1] See H. C. Taylor, *Agricultural Economics*, pp. 224–250.

[2] See Twelfth Census, "Agriculture," Part I, pp. lxxvii–lxxxi; and E. L. Bogart in the *Journal of Political Economy* for April, 1908.

And it is doubtful whether we ought to derive comfort from an increase in the proportion of owners — as shown in Section *B* of Table II — when this increase results from an exodus of the agricultural population to the cities, which must itself be regarded with grave apprehension. Census officials explain away the increase of tenancy by dividing the agricultural class into three reservoirs, — owners, tenants, and others (presumably laborers), — and assure us that the swelling volume of the middle reservoir is due to an increasingly rapid flow from the labor reservoir to the tenant reservoir, rather than a decreasingly rapid flow from the tenant reservoir to the reservoir of owners. But what about the flow from the labor reservoir to non-agricultural occupations? And how much of the diminution of ownership in trade and manufactures should be charged against the increase of ownership in agriculture? It is a condition, not a theory, confronting us, and when we start to explain this condition, it is not permissible to halt midway in the explanation.[1]

Farm Labor. — Although the agricultural account, to use a bookkeeper's metaphor, must be debited with any evil resulting from the rural exodus, before we can strike a proper balance of social profit and loss, the condition of those laborers who have remained upon the farms has unquestionably been improved by this exodus. The movement of the wages of farm labor since the Civil War is described statistically in Table III, following. From this it appears that farm wages were higher in the last year for which statistics are available than ever before, if we properly discount the inflated currency in which wages were paid in 1866, 1869, and 1875; and the rough estimates of the purchasing power of farm wages given in the last column of the table indicate that real wages have steadily risen since 1866. Moreover, the testi-

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[1] Two other agricultural problems of great importance might logically be introduced here — share *versus* cash tenancy and a consideration of the conditions under which it is better for a young farmer to hire than attempt to buy a farm. The latter problem is considered in connection with other relevant questions on page 540 of this chapter. The former question involves a discussion of the details of farm leases, and must be left to the larger treatises, although we may venture the suggestion that more depends upon the customs and conditions of peculiar localities than upon any inherent superiority of the cash rental.

TABLE III

WAGES OF FARM LABOR IN THE UNITED STATES FOR SPECIFIED YEARS: 1866–1902

(Wages expressed in currency for the years 1866, 1869, 1875)

YEAR	PER MONTH FOR YEAR OR SEASON		PER DAY IN HARVEST		ORDINARY FARM LABOR PER DAY		RELATIVE WAGES PER MONTH WITH BOARD ON THE BASIS OF 1890	
	Without board	With board	Without board	With board	Without board	With board	Money wages	Real wages
1902	$22.14	$16.40	$1.53	$1.34	$1.13	$.89	131.7	121.6
1899	20.23	14.07	1.37	1.12	1.01	.77	113.0	116.3
1898	19.38	13.43	1.30	1.05	.96	.72	107.9	111.9
1895	17.69	12.02	1.14	.92	.81	.62	96.5	101.0
1894	17.74	12.16	1.13	.93	.81	.63	97.7	100.3
1893	19.10	13.29	1.24	1.03	.89	.69	106.7	104.7
1892	18.60	12.54	1.30	1.02	.92	.67	100.7	101.2
1890	18.33	12.45	1.30	1.02	.92	.68	100.0	100.0
1888	18.24	12.36	1.31	1.02	.92	.67	99.3	96.7
1885	17.97	12.34	1.40	1.10	.91	.67	99.1	99.5
1882	18.94	12.41	1.48	1.15	.93	.67	99.7	85.7
1879	16.42	10.43	1.30	1.00	.81	.59	83.8	82.6
1875	19.87	12.72	1.70	1.35	1.08	.78	102.2	74.3
1869	25.92	16.55	2.20	1.74	1.41	1.02	132.9	81.8
1866	26.87	17.45	2.20	1.74	1.49	1.08	140.2	70.0

NOTE. — Broad averages are particularly unsatisfactory in dealing with the wages of farm labor, and the reader should regard this table not as an exact exhibit of money wages, but as a compendious method of describing a social movement the details of which are beyond the scope of this treatise. For a more adequate discussion, see Bulletin No. 26, Miscellaneous Series, U. S. Department of Agriculture.

mony is practically unanimous to the effect that the increased use of farm machinery has not only reduced the hours of labor, but has diversified and lightened the toil of the farm hand. Added to these evidences of increasing material comfort is the reassuring fact that the farm hand retains, in a large degree, his superior social position. The native white farm laborer usually eats at the same table with his employer, shares his social diversions, and in general mixes in the same social class on terms of approximate equality.

There is room, however, for much improvement. The hours of labor are still long in the country, — 10 in winter, 12 in summer, 13 in harvest season on the average, — and, except on a very small number of farms, there are two or three months in the year when the laborer cannot secure full work. "The able-bodied, industrious man desirous of employing his full vigor continuously finds a limitation in the average condition of farming. Seedtime and harvest make busy their respective periods, but whenever the frost of winter or the drought of summer suspend the activity of vegetation, there will be an interval in the work of the cultivator."[1]

Furthermore, the best evidence obtainable supports the conclusion that while "skilled labor, owing to its contact with machinery and the influence of education, has attained increased efficiency," "unskilled and irregular labor has lost much of its former adaptability and value to the farm."[2] Worst of all, there is rapidly developing a class of migratory or casual agricultural laborers who drift from city to country and back again, who have no ambition to establish themselves permanently upon the land, and yet teach the farmer to rely upon their assistance, and debase the real standard of living of the laborer who adopts farming as a serious occupation, and looks forward to the acquisition some day of a farm of his own.

Farm Indebtedness and Agricultural Credit. — The favorite instrument by which landownership is achieved in this country is the farm mortgage. In 1890, 18.60 per cent of all farm families occupied encumbered homes; 35.55 per cent of the value of these farms was covered by indebtedness, on which an interest rate of 7.07 per cent per annum was paid; 64.38 per cent of this indebtedness was contracted for the purpose of buying the farms; 83.51 per cent for buying, stocking, and equipping the farms; and probably not more than 5 or 6 per cent (something between 2.83 per cent and 12.35 per cent) represented losses and household expenses or "unproductive consumption." The farm mortgage, accordingly, is not necessarily a bad thing. It is, in census phraseology, " a mere business venture," and in this country has proved a successful venture in a surprisingly large proportion of cases. Since the financial depression of 1893–1897, particularly, farm mortgages have been paid off with unusual rapidity.

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[1] J. H. Blodgett, *Wages of Farm Labor in the United States*, p. 25. Bulletin No. 26, Miscellaneous Series, U.S. Department of Agriculture, p. 25.

[2] Final Report of the Industrial Commission, p. 92.

In European countries, particularly on the continent, a great deal of legislation has been enacted for the purpose of developing agricultural credit; and coöperative credit associations, particularly the German *Landschaften*, have played an important part in enabling farmers to obtain the capital necessary to purchase and equip farms. In principle these associations are not unlike the American building and loan societies. They operate within limited districts, lend their funds at the lowest rate consistent with safety, compel borrowers to liquidate the principal of their loans regularly as they make their interest payments, teach farmers how to work together for common ends, and offer in their shares or bonds a safe investment both for the thrifty young farmer whose savings are not large enough to be lent in the form of an ordinary mortgage, and for the retired farmer who desires to be rid of the trouble of leasing and looking after his land.

At the present time it would be unwise to introduce into this country land banks, Raiffeisen credit banks, district credit associations or any other exotic credit agency, *merely for the purpose of multiplying credit facilities.*

Notwithstanding this truth, however, it would be a happy augury for this country if the coöperative credit association took root in our farming districts and flourished there; because the spirit that generates and sustains them is an invaluable social asset, and once under way such associations help to strengthen and propagate that spirit. While, therefore, it might be unwise at this time to transplant such associations to this country or assist them by state aid,[1] it would be the height of wisdom to stimulate the love of agriculture, the atmosphere of thrift and mutual aid in which such associations thrive. For they might possibly reduce the interest rate in farming districts if they got a foothold there; and they would almost certainly provide farmers with a better form of investing their savings than they now have, facilitate the sale of land, and hence increase ownership as opposed to tenancy, compel borrowers to pay the principal of their debt gradually as they made the interest payments, and above all train the farming population in habits of coöperative endeavor and in the wise use of that double-edged sword, credit. After all our need is not for more credit but for a wiser use of credit. The good that might be accomplished in the South by introducing coöperative credit in the place of the crop-lien system is almost inconceivable. And in the first analysis, at least, such a project does not appear to be hopeless, for the South is much stronger in almost every way to-day than was devastated Silesia when the first *Landschaft* began operations in 1770.

Tenancy versus Encumbered Ownership. — We are now in position to discuss profitably the question when and where — if ever — tenancy is to be preferred to land ownership. For though it may come as a surprise to some American readers, many foreign authorities of the highest rank strongly advocate tenancy in preference to ownership when land has become very valuable. In the expert evidence given before the British committee of 1906 on small holdings, for instance, the balance of opinion seems to have inclined toward tenancy rather than ownership.

Here again we meet one of those mixed economic and psychological questions to which no simple answer can be given. In a frontier or newly settled community, there is, of course, little reason for tenancy from any standpoint. But in an old community, where land values are high and are as likely to fluctuate downwards as upwards in the next score of years or so, the economic arguments in favor of tenancy are exceedingly strong if not altogether convincing. (*a*) Under such circumstances the farmer who insists upon holding the title to the land which he tills must either go deeply into debt, or understock his farm, or both. To underequip the farm means poor agriculture; and a heavy debt hangs like a millstone around the neck of a farmer when land values are not on the increase. The tenant farmers of England have had a far more pleasant time since 1873 than the small landowning farmers whose holdings were encumbered with debt at that time. (*b*) The ownership of land throws upon the farmer all the speculative responsibilities of the entrepreneur, and other things being equal — *if they can ever be regarded as equal* — it is desirable for the man of small means to avoid these responsibilities. The tenant system offers a means of insurance against some of these risks. (*c*) Such insurance becomes all the more advantageous and encumbered ownership all the more disadvantageous because of the well-known fact that land yields a net return, year by year, lower than almost any other form of property. Part of this is due to the social prestige of landownership and part to the fact that over very long periods the small annual profit on land is likely to be compensated for by an increase in the capital value of the land. Under such circumstances landownership is partly a luxury and partly a method of saving, usually for the descendants and heirs of the saver. Both factors conspire to make land a poor investment for the man of small means. He cannot afford luxuries, on the one hand, and he must find a method of business, on the other hand, that yields him a quick return. (*d*) And finally, it must be noted that the question of tenancy is not like the labor problem which has developed in the factory industries. The tenant is not a wage-earner. He may be as independent as the manufacturer who hires the land, buildings, and possibly the machinery with which he works. The problem of tenancy, therefore, has no necessary relationship to the problem created by the existence of a class of permanent wage-earners. The small entrepreneur still holds the field in agriculture, all over the world. The question is simply: shall he hire his plant or own it?

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[1] However, the German *Landschaften* owe their origin to the investigations and support of Frederick the Great, although the details of the system were first worked out by the Berlin merchant, Bühring. See the *Agrarisches Handbuch* of the Bund der Landwirte, pp. 557–558.

Notwithstanding the fact that tenant farming may go hand in hand, as it does in England, with good farming, and notwithstanding the desirability of reducing the speculative risks of an industry which is at best much too uncertain, the problem can never be settled on economic grounds alone; and if we add to the economic virtues of ownership its social and moral advantages, the final verdict must be rendered against tenancy. Ownership not only spurs the zeal of the farmer, dignifies his occupation, and inculcates a love of the soil which nothing else inspires in so great a degree, but it gives the farmer a stake in the political game, steadies him, and thus improves his citizenship. It is perfectly plain that ownership cannot be enforced upon a people that are not prepared for it: certain restricted districts of the South in which negro ownership prevailed a few years ago, we understand on good authority, are now relapsing into quasi-barbarism. And it is equally obvious that the virtues which go with ownership may and often do degenerate into vices: the peasant proprietor's love of the soil occasionally becomes land worship, his thrift avarice, his conservatism blind fear, and his industry cruel — he drives himself and wife and children at a pace that would put the sweater to shame.

But we are not advocating the extension of landownership through state aid — we simply call attention to the desirability of fostering those qualities which lead to the diffusion of ownership and are in turn strengthened by ownership; and we maintain that the American people at present are in no danger of excessive thrift or of the sordid materialism of peasant proprietorship at its worst. The tendencies and the dangers are almost all in the opposite direction. If, in the next fifty years, the farmers of the Middle West become predominantly tenants, it will not be because tenancy is economically and socially superior to ownership, but because the farmers of that district have not had the thrift to save and the ability to adapt themselves to more intensive agriculture. And the step will be backward, not forward. The popular instinct which in this country causes an increase of tenancy to be regarded with distrust is a sound instinct.

A minor disadvantage of tenancy is found in the fact that tenancy, when it becomes predominant, raises difficulties that can only be met by constant

State interference. Short leases with no indemnification to the tenant for the improvements which he has made, lead to rack-renting, exhaustion of the soil, and class hatred between landlords and tenants. Long leases, on the other hand, afford insufficient protection to the landlord; because when prices are high the tenant thrives and pays his rent promptly, but when prices fall rents go unpaid and the landlord has no real redress. In England the situation has been met by a system of short time leases together with compensation to the tenant — a legal obligation which the landlord cannot escape by "contracting out" — for any improvement made by the tenant whose value he has not exhausted. Neither party can abrogate a lease without a year's notice, although by mutual consent this may be reduced to six months. This system permits rentals to be adjusted frequently as prices change, rules out excessive competition, protects the landlord, and warrants the tenant in making any improvement required by good farming, since he knows that, if the landlord orders him out, he can collect on his departure the actual value of improvements made by him, whose benefits he has not had time to reap. In practice, the incoming tenant usually pays for the unexhausted improvements, and disputes are settled by arbitration. Under this system, "the relation between landlord and tenant is very satisfactorily arranged, the farmers are, as a rule, contented with the present system, and the fields of England prove that landownership on the part of farmers is not essential to good agriculture." [1]

Marketing of Farm Products. — One of our most urgent needs at the present time is the greater diversification of industry in general. The prices of the great staple crops such as wheat are largely dependent upon conditions of demand and supply in foreign markets; and the consequence is that a poor crop may coincide with a period of low prices, or an abnormally large crop with unusually high prices. This is almost impossible in the case of products whose value is fixed in a local market. With such products, the misfortune of a small yield is normally reduced by the advantage — to the producer — of a high price; the two compensating factors working to moderate those fluctuations of income which are the bane of the agricultural industry. The advantage is not all with the local market. Prices are apt to be steadier in a world market, because the latter reflects conditions over a wider area. For this reason it would be unwise to endanger our foreign markets by tariff wars or oppressive railway regulation. But such pressure as can legitimately be exerted at the present time should be employed to bring the miller, the brewer, the cotton manufacturer, the packer, and the consumer closer to the farm. If caution and expert knowledge are employed, this can be done without crippling those transportation agencies which have given the American farmer entry to the markets of Europe and the Orient, and which must be preserved in order to prevent too exclusive a reliance upon local demand. A local market as the regular outlet, and a foreign market as a potential outlet, is the condition of maximum safety.

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[1] H. C. Taylor, *The Decline of Landowning Farmers in England*, p. 61.

Railway tariffs which favor through traffic at the expense of local traffic are largely if not mainly responsible for the concentration of manufactures and population in the large cities. For many years, Southern cotton mills reaped little or no advantage, so far as the price of cotton was concerned, from their proximity to the source of supply, but paid as much or even more for cotton than their competitors in New York. The railways are not wholly responsible for this condition of affairs. In England, particularly, representatives of the agricultural interests have criticised the railways for accepting lower rates from the seaboard to interior points, than on local traffic from intervening stations to the same destination, when the difference was fully explained by the larger size of the seaboard shipments, their more convenient package, and the great expense of picking up small consignments of freight at numerous local way stations. And competition forces railways frequently to accept lower rates for long than for short hauls over the same road. But there can be little doubt that American railways have charged the local traffic much more than their necessity compelled them to charge, particularly in the South; and there are few reforms on the side of marketing which American farmers could demand with more equity or secure with greater social profit than the rehabilitation and revitalization of the long and short haul clause of the Interstate Commerce Act, emasculated by the Supreme Court decision in the Alabama Midland Case (168 U.S. 144, 173). This might, however, involve certain pains of readjustment.

At present there is a great gap between the farmer and the consumer of his products which is bridged by a complicated trading or distributive[1] mechanism composed of railways, storage companies, commission merchants, brokers, and other middlemen. In the distribution of the great staple products, the commission merchant is rapidly being forced out, and fortunately so: he was unprogressive, uneconomical, and too often betrayed the interests of his client by systematic overcharges for insurance, hauling, and storage, by buying consignments on his own account when market conditions were unusually favorable, and selling at the loss of the owner when the market was particularly bad. In the marketing of perishable goods the commission system has a more tenacious hold, but even here it has been partly replaced by coöperative associations of farmers or growers such as the California Fruit Growers and Shippers' Association, which maintains auction rooms in eastern cities and sells its own products direct. The Southern California Fruit Exchange, to cite a single illustration, in a few years reduced the cost of marketing California fruits from 10 to 3 per cent of the sales value.

The coöperative marketing association and the intermediate trader who buys from the grower and sells to the consumer, have in common two points of superiority over the commission system; (*a*) they replace the zeal of an agent by the care and solicitude of an owner; (*b*) and by shipping in large quantities they are in position to obtain much better rates from the railways, to say nothing of the other economics affected by handling goods on a large scale.[2] Whether the coöperative association will force the commission merchant out of business in the marketing of fruits and vegetables is a point which cannot be settled here. But there can be little doubt that the farmer has gained enormously by the substitution of the trader for the commission house in the marketing of the great staple products. The trader comes almost to the door of the farmer, with constant bids for his grain. He is an expert in railway rates, in constant telegraphic communication with the great markets of the world, and handles products in such large quantities as to reduce intermediate expenses to a minimum. Occasionally, as has sometimes been the case with the great line elevator companies, he works in conjunction or in collusion with the railways, overbidding the small grain dealer, and forcing the railway to grant rebates on the large shipments which he commands. Even in this case, the farmer gains by the size and efficiency of the middleman (though the small dealer may suffer) because part of the economies effected — even those effected by the discriminative railway rates — will come to him in the long run. Cases of monopolistic oppression are theoretically possible when there is only one buyer and one railway who are in collusion, and the farmer is deprived — because of high railway rates — from shipping his products elsewhere. But the loss to the farmer through extortion of this kind has in general been much more than counterbalanced by the striking economies effected by the great trading companies; though this, of course, affords no justification either for monopoly or railway discrimination. Both should be suppressed, if possible; but in such a way as to save for the farmer the distributive economies effected by large-scale handling.

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[1] The word "distributive" is used in the popular sense in this chapter.

[2] The coöperative marketing associations have also effected great economies by watching prices in all markets carefully and distributing their consignments so as to get the highest prices obtaining at the time.

Speculation. — The modern marketing or distributive mechanism not only relieves the producer of a large part of the speculative risk which attends the transmission of raw material from the farm to the consumer, and calls public attention to this speculative element by collecting or concentrating it, but it is responsible also for a large amount of unnecessary speculation which many persons believe to be particularly injurious to the farmer. We are not here concerned with the general evils of speculation but with the prevalent belief that dealing in options and futures tends to reduce prices. "What is generally urged is that the professional short seller, by his sales of fictitious wheat or cotton, creates a fictitious oversupply in the market, which is just as instrumental in depressing prices as would be an abnormally large supply of actual wheat thrown on the market by the farmer."[1] This charge is frequently supplemented by the assertion that it requires less money in margins to "sell short" — or gamble on a fall in prices — than to "sell long" in anticipation of a rise, and that, in consequence, the weight of the speculative dealing in farm products is exerted in the direction of lower prices.

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[1] N. I. Stone in the *Report of the Industrial Commission*, Vol. VI, p. 189 ff., from which the other quotations cited in this section are also taken.

This particular charge against speculation is confirmed neither by *a priori* reasoning nor by inductive analysis. Every "fictitious" sale of wheat, to use that as an illustration, must be balanced by an equivalent "fictitious" purchase. The "bear" who sells October wheat in July, even though he may hope to depress the price of October "futures," exercises no harmful influence upon the actual July or "spot" price, which is controlled by the demand for and supply of actual wheat; and when October comes, "the short seller of July appears now as a buyer in order to cover his contracts, and if his trading has any effect on the market at all, it is to increase the demand, not the supply."

It is very plain that the fictitious market may be artificially influenced by speculative deals, but as a general thing the fictitious market is ruled by the actual market, not *vice versa;* and the only influence exerted by gambling in futures upon "spot" prices (with which alone the farmer is concerned) is a good influence. This influence arises out of the effect of future transactions in equalizing consumption and in modifying present use by anticipating future necessity. And the complaint that it requires less capital to "bear" the market than to "bull" it, as well as a great number of ingenious criticisms of a similar kind, would all be negatived — if they were true — by the inevitable consequence that *any permanent factor of this kind would be quickly appreciated by speculators and fully discounted.* In no market are influences of this kind so accurately detected and so quickly dissipated by competitive forces as on the produce and cotton exchanges.

Actual investigations of prices confirm the theoretical argument made above. The average prices of spot wheat in September, October, and November — just after harvest, when the ordinary farmer is compelled to sell — have been nearer the average price for the entire year, since the wheat market has become highly speculative, than it was in the forties and fifties when wheat was sold like any other farm product. And there are reasons for the belief that speculation has not only equalized yearly fluctuations, but that the leveling has been up, not down, in the interest of the farmer who is compelled to sell after harvest, as opposed to the wealthier miller or trader who in the past carried over a supply for the lean months. "It is not uncommonly stated that in the last few years futures in the wheat market have not, in the long run, stood enough above "spots" to cover all the expenses of carrying. Some suggested reasons for this are: cut charges for storage; the failure of outside speculation to maintain the market against hedging sales; the fact that the great elevators will buy wheat and carry it for what they can get, and perform the functions of both carrier and trader for the commission of one. In any case, the tendency is to bring all prices together."[1]

Education and Organization. — Again and again, in studying the problems of agriculture, we come back to the conclusion that the real evils which beset agriculture are to be remedied not merely by destroying monopoly, and still less by suppressing speculation, or increasing the money supply, but by education, using that word in its most catholic sense. The laws that are worth passing, the customs that are worth introducing, the institutions that are worth establishing, are those that educate, — though curiously enough most of these require for their realization a preliminary campaign of education. In the final analysis, agricultural betterment comes back to the will and ideals of the individual farmer, and the supreme value of education lies in its power to prick the ambition, energize the will, and awaken the pride of the farmer.

It would be impossible, within the limits of this chapter, to discuss the subject of agricultural education; and the reader is doubtless familiar with the work done by the United States Department of Agriculture and the experiment stations, the agricultural colleges and their traveling lecturers, farmers' institutes, farmers' bulletins, and short (winter) courses for working farmers. Scientific research and agricultural education of the more advanced type are now fairly well provided for. The urgent demand at present is for better education of the elementary and secondary grades. The public expenditures for research and advanced education that have been made in the past have been richly remunerative. Similar appropriations for elementary instruction in agriculture would probably prove even more profitable. Above all, the district school should be improved, and interest in agriculture awakened by the intelligent introduction of nature study and rudimentary agriculture. The country must learn to interest and keep the highest talent which it produces, instead of packing off the brightest boys to the cities. And above the district school, institutions of a higher grade must be developed, in which agriculture shall occupy the same place that manual training does in the best of our city trade schools.

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[1] H. C. Emery, *Speculation on the Stock and Produce Exchanges of the United States*, p. 131.

> "To bridge the institutional gap between the public schools and the agricultural college there is nothing in the American system of agricultural education corresponding in completeness to that in operation in France. There agricultural education begins in the rural primary schools, from the ages of 7 to 9, with the simplest facts of agriculture, such as first lessons in the garden; from 9 to 11 years, soils, fertilizers, tillage, and the ordinary implements; from 11 to 13 years, more methodical instruction, in tillage, drainage, implements, fertilizers, sowing, harvesting, domestic animals, horticultural propagation, tree culture, and grafting. After 13, advanced courses for boys and girls include practical ideas and operations in the leading phases of agriculture. The rural primary schools have about 3400 gardens attached to them. There are 160 of the superior primary schools, with more than 15,000 pupils receiving instruction in agriculture."[1]

"The farm problem," it has been truly said, "consists in maintaining upon our farms a class of people who have succeeded in procuring for themselves the highest possible class status, not only in the industrial, but in the political and social order — a relative status, moreover, that is measured by the demands of American ideals."[2] To secure and maintain such a status, education in the ordinary sense is not enough. Education must be supplemented by a multitude of social organizations, quickening, enlightening, and solidifying the agricultural classes. A great variety of such organizations are already in the field, from the county teachers' and patrons' associations designed to unite pupil, teacher, and parent in a crusade for broader and deeper culture, to organizations like the Patrons of Husbandry, whose first aim, as enumerated in its Declaration of Purposes, is "to develop a better and higher manhood and womanhood among ourselves." Limitations of space forbid any extended description of the vitally important work which organizations of this kind are doing for the agricultural classes; but it may be possible, in conclusion, to correct one or two misapprehensions which are widely prevalent concerning the nature and vitality of farmers' organizations. The National Grange will serve as a good illustration.

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[1] Final Report of the Industrial Commission, p. 130.

[2] K. L. Butterfield, President of the Massachusetts Agricultural College, *Chapters in Rural Progress*, p. 15.

Founded just after the Civil War (1867) in order "to restore kindly feelings" between the people of the North and the South, this organization is still strong and vigorous, having in 1905 more than 220,000 members in the five leading Grange states. Despite a popular impression that the Grange is a partisan political organization, addicted to radical ideas and utopian schemes of reform, its principal activities are social and educational in the best sense, and discussion of political or religious questions at its meetings is prohibited by the organic law of the order. "It is based on correct principles: organization, coöperation, education. It is neither a political party nor a business agency. It is progressively conservative — or conservatively progressive. It is neither ultra-radical nor forever in the rut. Its chief work is on cultural lines. It includes the entire family. It is now growing, and there is every reason for thinking that this growth is of a permanent character."[1]

QUESTIONS

1. Make a list of the economic factors which regulate the size of farms. Is the average farm likely to grow larger or smaller with the passage of time? Is the narrow economic conclusion concerning the size of the farm, based upon maximum net profit to the individual farmer, subject to modification by reason of social or moral considerations?

2. Has the net effect of the rural exodus been favorable or unfavorable to agriculture and the agricultural classes? to society generally?

3. Does the increase of tenancy in the Southern states represent progress or retrogression? in the North Central states?

4. Under what conditions is the cash rental superior to share tenancy?

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[1] *Ibid.*, p. 161.

Would the "corn rent" — or a sliding rental varying with the price of farm products — be superior to both? Are short leases better than long leases for the landlord?

5. Do the farmers in your locality suffer from the lack of credit facilities? Have they any difficulty in finding safe and convenient investments for their savings?

6. What is the advantage of specialized farming over diversified farming? Do we imply, when we advocate diversified farming, that the farmer should "buy nothing that he can raise or make for himself"?

7. Is speculation a "necessary" or an "unnecessary evil"? Do the farmers suffer more or less than other classes from speculation on the produce exchanges?

8. Is any attention paid to agriculture in the elementary schools of your locality? Would large public expenditures for the improvement of elementary education probably prove profitable in the long run?

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BOOK III

PUBLIC FINANCE

CHAPTER XXXII

PUBLIC EXPENDITURES

Introductory. Nature and Significance of Public Finance. — *Public finance deals with the revenues of government, with their expenditure and their administration.* Public finance is one part of economics. Like general economics, it deals with the means for the satisfaction of human wants. Some of our wants we satisfy in one way, some in another. Some we satisfy individually. Some we satisfy through private associated effort, especially through the private corporation. Others we satisfy through public collective effort, that is to say, through some governmental agency. The wants which we satisfy through governmental agency are not all of them so peculiar that they could not be satisfied either through private individual activity or private associated activity. Let us take the case of watering the streets. There are places in which the streets, in so far as they are watered at all, are watered by individuals in their private capacity, each man watering the street in front of his own house with his own hose. There are other places in which the householders join together and pay some one to water the streets for them, and do this privately. There are still other cities in which the city government employs persons to water the streets and pays them from the proceeds of taxation.

There are, to be sure, some wants which are satisfied through governmental agency and which a civilized community will not allow us to satisfy privately. This is the case with those wants which are satisfied by means of the police and the courts. It is a peculiar function of government in modern times to provide the inestimable blessing that we call security of person and property. This requires economic resources, just as the satisfaction of the other wants mentioned does, and public finance has to do with the provision of these resources.

Public finance, then, is a part of economics because it deals with the satisfaction of wants through economic resources. It is also a part of economics because it has its influence upon the production, the distribution, and the consumption of wealth. But while we have to insist that public finance belongs to economics, it is more separated from the other parts of economics than they are from each other. Inasmuch as it deals with the satisfaction of wants through governmental agency, it has its own peculiarities, and it is only an undue emphasis upon these peculiarities which leads some writers to make it a separate science.

The significance of public finance may be brought before us; first, by examination of the increasing amount of public revenues, and second, by the enormous aggregate of these revenues at the present time. Public revenues have gone on increasing during the present century by leaps and bounds. An illustration is afforded by the history of France. Eighty years ago the public expenditures of France reached one thousand million francs for the first time, or, as we generally say, a billion francs. There was universal astonishment and alarm, just as there was when, for the first time, an American Congress spent a billion dollars in two years. Never since the time, however, when the public expenditures of France first amounted to a thousand million francs have they been so small. Gradually they increased until they reached two thousand millions, never to pass below that mark; then they increased until they touched three thousand millions; and now the national expenditures are nearly four thousand millions. Public expenditures at the present time, under the modern government, amount to more than a tenth part of all the wealth produced.[1]

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[1] This estimate (that public expenditures equal one tenth part of all the wealth annually produced) has been given, but it must be a very considerable underestimate for the modern nation. We in reality know very little about the amount of wealth annually produced in the modern nations of the world. But such data as we have, and familiar observation, are sufficient to convince us that the wealth produced is not ten times the total public expenditures. In the United States, according to the Report of the Census Office, *Wealth, Debt, and Taxation*, the

Now what does this mean? Does it signify increasing extravagance or even corruption? Quite the contrary. While the modern government is far from perfect, it is throughout the civilized world probably better than it ever has been before. Take the civilized world as a whole, there probably never was more honest government or more efficient government than there is to-day. What it really means is this: We are living in a period of increasing public coöperation. We think we find it more advantageous to satisfy certain wants, growing in number and significance, through public coöperation, than through individual effort or private coöperation. This is the chief significance of the increasing governmental budget throughout the civilized world. But unhappily, militarism in its various phases is next in significance, and is the chief phase of public expenditures that is disquieting.[1] Educational expenditures afford a good illustration. They run up into the hundred millions in the modern nation, whereas, previously to this century, they were insignificant. Expenditures for police protection, for public lighting, and for sanitation are something which, so far as any expenditures of magnitude are concerned, belongs to this century.

Public finance has another significance. Questions of social reform are now connected generally with financial questions just as formerly they were with constitutional questions. Public finance has become the central fighting place for social reform. The question of protection has, from the earliest days in this country, been connected with public finance. Police regulation has also been connected with fiscal measures. The license charge for saloons furnishes an illustration. The idea of police power is

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total expenditures, including the national government, states, territories, and local subdivisions, amount to over $1,700,000,000. This would make a *per capita* expenditure exceeding $20, if the population of the country is estimated at eighty millions. This would mean $100 per family of five; and, on the basis of 10 per cent for such a family, would mean an average annual income of $1000. In England the *per capita* expenditure of the national government alone is over $15.50, and in France over $17. The 10 per cent estimate, then, is clearly an underestimate.

[1] This topic is adequately treated by Professor Charles J. Bullock in his article entitled "The Growth of Federal Expenditures," in the *Political Science Quarterly*, Vol. XVIII, pp. 97–111.

expanding in the United States, and this means expansion of the field of public finance. The discussion of public expenditures reveals, as few other subjects do, the nature of our civilization.

Expenditures of Public and Private Economies Contrasted. — There is a difference between public and private economies with respect to the equilibrium between income and outgo. Relatively, there is an elasticity of government revenues and an elasticity of government expenditures. This finds expression in the statement that *public revenues are gauged according to expenditures; whereas, in the private economy, the household expenditures are regulated by income.* This is a regular rule for normal conditions. It is abnormal when irregularities in public income lead to irregularities in expenditures. It has been observed by a critic that this principle of public finance is true in a legal sense, but not in an economic sense. It is said that when public expenditure is decided upon, then we legally determine the income; but, economically, the expenditures of the state rest upon a foundation as elastic as that of a private person.[1] It is true that in public expenditures there must be a balancing of gain and sacrifice, and that in the case of a particular expenditure it must be weighed over against all other possible expenditures, not only public, but private. The rich state, undoubtedly, will incur expenditures from which a poor but prudent people will probably shrink. On the other hand, a private person is not to be thought of as spending necessarily all his income, even if he gauges his expenditures by income.

Nevertheless, roughly speaking, the proposition is true on account of the priority of the claims of the state. This has been well brought out by critics of Henry George, who advocated the appropriation of economic rent for public expenditures. Some of Mr. George's followers have replied to the objection that economic rent might not be sufficient for public expenditures: "Then the state must curtail its expenditures as the private person would do." When we think about it, we find that certain public expenditures must be made and must take prior claim. However, when, as is so often the case in cities, there is an income strictly limited by the tax rate, we frequently have a case like that of a man with a limited and inadequate income. This is an unfortunate situation for cities; but the case of a national government which did not have a prior claim upon wealth for defense would be anomalous.

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[1] Cohn, *Finanzwissenschaft*, S. 184.

Closely connected with what has been said, we find various differences due to the sovereignty of the state and its perpetual life. The state orders a citizen to give up a part of his possessions, and, indeed, frequently fixes prices. And a peculiarity in all states determining prices for property and services is that they must be determined by criteria of fairness, inasmuch as by the very hypothesis competition is wanting wholly or in part. Consequently, we find courts and legislatures much occupied with the determination of what is "fair and reasonable." The perpetual life of the state has to be kept in mind in a great variety of expenditures. It is the special function of the state to provide for future generations, and this is seen, for example, in forestry and in care for rivers and harbors.

There is a difference between public and private economies in the means of measuring the utilities resulting from expenditures. It is at once admitted that all expenditures of states and of private persons should, in a large sense, be productive. Waste is everywhere an economic wrong, but productive expenditures mean simply useful expenditures. What the state produces is largely immaterial services, and these have no market price. How can we tell whether they are socially profitable or unprofitable? They are not worth while if they result in a sacrifice of other expenditures which would yield larger satisfactions. It is a special function of the legislative body, in a constitutional state, to decide upon the relative advantages of various possible public expenditures, and to weigh these over against the advantages of private expenditures which might have been made if the money permitting the expenditures had been left in private pockets. When a certain sum is taken from me by taxation, it results in a public expenditure instead of a private expenditure which might have been made. This is only another way of saying that public expenditures are largely from income which is *derivative.* Private individuals secure an income and then yield a part of it for public purposes. These contributions are compulsory. On the other hand, there are economists who look upon the state as a factor in production, and hold that what is paid in taxes is less than what corresponds to the coöperative activity of the state in the maintenance of law and order and in other services. The special social significance of public expenditures is that their aim is inclusive, normally and regularly; whereas, normally and regularly, the aims of private expenditures are more or less exclusive. A public library contrasted with a scholar's private collection of books illustrates this point.

All these differences are considerable, and they give us perhaps at least one reason why business men are so often a disappointment in an official capacity. The public financier must be governed by the public point of view; and there are many points at which this diverges from the private point of view. The true statesman is one who has the public point of view, and yet is able to avail himself of the knowledge and experience of private business.

The Proper Proportion between the Total Income of Society and Public Expenditures. — We notice actual changes in this proportion, and we discover that further changes are advocated, running all the way from the anarchist position, which would abolish government and public expenditures, to socialism, which, by making production and distribution public functions, would make public expenditures, broadly construed, nearly equal to the total wealth production.

An attempt has been made by those who take a less extreme position than either of these to give an estimate of what is a large public expenditure, what a small expenditure, what is desirable, undesirable, or even intolerable. Generally these estimates are made with respect to the maximum expenditure, but we could equally well raise the question with respect to the minimum. One writer speaks of public expenditures of 16 per cent as average, and 25 per cent as excessive. Another regards public expenditures which consume 15 per cent of the total annual wealth production as the upper limit. In our American practice, we very generally attempt to limit the percentage of direct taxes. But the upper limits are based on valuation of property and not on income; while state constitutions very frequently limit state expenditures, and also expenditures of cities and other local units. For local purposes in the United States, we have roughly a limit of ½ to 2 per cent of the valuation of property. Total taxation of real property frequently runs in the United States from 10 per cent to even 20 per cent of the net profits, and indeed not infrequently goes a great deal beyond that. The truth is, that it is absolutely impossible to give any general answer to the question, "What is the proper proportion between the total income of society and public expenditures?" Variations in the wealth of a country have to be considered, and these mean much when the question of additional expenditure is raised. Variations in tax systems and the consequent distribution of the burden of taxation make a wide difference. In times of distress, more can be expended than on ordinary occasions. When the national life of the state is endangered in a war, expenditures will be incurred which would be impossible at any other time, simply because, for any other reason, the people would not submit to the sacrifice involved.

But there are other points of view which go still deeper. Why do we spend money at all through the state? Obviously to satisfy needs. How much we should spend publicly depends upon what needs are satisfied publicly. We have to ask and answer the question, "What position do these needs hold among our needs in general?" "Do they belong to our necessities or superfluities?" When we consider public expenditures in the broadest terms, we must take into account the amount of production which is carried on by the state — employing this term "state" here as elsewhere in its generic sense. If the railways (as in Germany) are state railways, a larger percentage of the expenditures and revenues of the country are public in character than would be the case if they were privately owned and operated. No comparison of expenditures of various countries can have any value if it does not take into account considerations of this kind.

Professor Adolph Wagner[1] lays down this rule, which is helpful in answering the question as to the proper proportion between the income of society and public expenditures for any particular time and place: "The permissible amount of public expenditures, both absolutely and relatively considered, will vary directly in proportion to (*a*) the direct economic value of state activities; (*b*) the extent to which it promotes the productive power of all; (*c*) the absolutely free social income;[2] (*d*) the larger the part of the net state receipts coming from the quasi-private acquisition (railways — industries in general) of the state and not from taxes."[3] Fortunately, how much we shall spend presents itself historically, that is, with respect to historical conditions, and has reference to increments or decrements of expenditure. The problem is far easier of solution than it would be otherwise.

In fact, except as a concrete historical problem, it is impossible to state how great the public expenditures should be. We are now in a position to understand why it is that the nations of the world have not been ruined by expenditures which even a generation ago would have been thought absolutely crushing, and one hundred years ago would have been inconceivable. We satisfy our needs to an ever increasing extent through public agencies. This finds expression in the Law of Increasing Public Expenditures, given by the same writer from whom we have just quoted. "*Comparisons between different countries and different periods show regularly among progressive nations an extension of public activities. This manifests itself extensively and intensively. The state and its subordinate political units continually undertake new functions, and they perform their duties, old and new, better and better. In this way, that is, through public agency, the needs of the population, to an increasing extent, especially their common needs, are satisfied; and the public services for the satisfaction of needs continually improve in quality. The clear proof of this is given*

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[1] *Finanzwissenchaft*, 2te A., Bd. I, S. 65.

[2] *I.e.* beyond and above what is needed for subsistence.

[3] This means public ownership of enterprises which are so conducted as to yield profits. All the profits can and indeed must be expended for public purposes, whereas, if the industry were private, only a part of the profits could be taken for public purposes.

statistically in the increased demands made by the state and the subordinate political units."[1]

We have here described what is a part of a still larger movement, namely, the socialization of production and the socialization of consumption. It is, however, the socialization of consumption which especially confronts us in public expenditures. To an increasing extent what is consumed by the family is produced outside the family. There has been going forward a great process of socialization, and this finds expression in part in public expenditures. An increasing proportion of the needs of the family are satisfied, not by the private economy, but by the public economy, and satisfied also, as Professor Wagner points out, not in accordance with the principles of private economy, which is service for service, but in accordance with the principles of the public economy, which is a general return for that which is received.

We have to do with what we may also call socialization of supply. We do not protect ourselves against physical violence, but are protected by the state. We do not educate our own children; they are educated by public agency. The public expenditures are also made to promote art and all the higher interests of life. The services which the federal government renders us in the post office find expression in public expenditures. Public expenditures are giving us more beautiful and more healthful cities, and are satisfying the needs which arise out of the extensive growth of the country, in its expansion geographically and in the size of the population, and also the needs which arise from an intensive growth.

The significance is partly in increased activity of the state and partly in the incidence of the cost of the services under consideration. The poor, who could not themselves have pleasure grounds, enjoy public parks, and these are maintained at public expense. So we may take up one service after another and find that wealth, produced in accordance with the principles of the private economy, is consumed in accordance with the principles of the public economy, and that is very largely in accordance to needs and capacity for use. The whole public educational system, from the country district school to the modern state university, culminating in research and investigation, admirably illustrates this principle.

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[1] Wagner, *Allgemeine Volkswirthschaftslehre*, Erster Theil, Grundlegung, Kap. 4, 3 Hauptabsch., S. 310, Bd. I, 2te A.

The Principle of Economy versus Parsimony in Public Expenditures. — After a definition of economy in Webster's *International Dictionary*, we find the following: "Economy, Frugality, Parsimony. Economy avoids all waste and extravagance, and applies money to the best advantage; frugality cuts off indulgences, and proceeds on a system of saving. The latter conveys the idea of not using or spending superfluously, and is opposed to lavishness or profusion. Frugality is usually applied to matters of consumption, and commonly points to simplicity of manners. Parsimony is frugality carried to an extreme, involving meanness of spirit and a sordid mode of living. Economy is a virtue and parsimony a vice."

We must have clear ideas as to which course of the three we shall follow, for it is scarcely to be taken for granted that we shall follow the course of extravagance. There is, however, danger of indifference as to the size of public expenditures, and extravagance may result therefrom. While scarcely any one now would deliberately advocate extravagance so far as the general principle is concerned, extravagance in detail might be advocated; and, in fact, in practice we find both indifference and extravagance. Sometimes the idea that extravagance brings money into circulation has found favor, and especially has been used for the justfication of large expenditures by royal courts. The same idea has been used as a justification for luxury. It can, however, find no support in economics. There is danger of extravagance because each one concerned with governmental expenditures feels that what he spends is a relatively small matter, and indeed it is. It is sometimes thoughtlessly overlooked that when many are spending, "small waste" becomes significant, and may be even ruinous. This is a problem which concerns every large business, and it requires strict and wise administration to avoids the two extremes: wasteful extravagance and red tape.

Sectionalism also results in extravagance, and this shows itself badly in the United States at times. Whatever any state can secure from the federal Treasury is often looked upon as so much clear gain. This was clearly brought out in the discussions concerning the repayment, a few years ago, of the direct tax that has been paid by the states to the federal government. This tax has now been repaid, but many states gave agents large and extravagant sums to work for the refund. Sometimes sectionalism manifests itself even in cities. In one section of the city there may be vigorous efforts to secure money for itself without due regard for the general interest.

The peculiar condition of our federal financiering (which is found in the fact that the taxes are laid very largely for other than revenue purposes, and that there is no careful balancing over and against one another of probable revenues and probable expenditures) results frequently in a large surplus in the federal Treasury. There is danger of extravagance wherever revenues outrun felt needs. There never has been a time when it would not have been possible to have expended wisely the entire revenues of the federal government; *e.g.*, the telegraph might have been purchased, and educational expenditures might have been increased. But there was no demand for these expenditures strong enough to prevail, and the outlet was found along the lines of least resistance, or, perhaps it ought rather to be said, along the lines of greatest "pull." We may then lay it down as a general law that *there is danger of extravagance whenever public revenues outrun felt needs*.

There is a tendency, especially wherever public spirit is not highly developed, to favor parsimony, and to regard that as the best administration which spends least, and the smallest tax as the best tax. This idea was encouraged, particularly by those who looked upon government expenditures as external to the life of the people — as if they were expenditures for some outside person. This idea, indeed, may be traced back to monarchical government and to a time when royal courts consumed a large part of the public revenue. The smallest expenditure means the accomplishment of the fewest purposes. Parsimony means meanness, and can never be the rule either of public or private financiering. Frugality is the rule when it is a necessity. Economy is the sound rule; and this means a broad and liberal policy and a husbanding of resources. The wise citizen judges any particular administration either in the nation or the state, not chiefly by the amount of public expenditures, but by the results of public expenditures, appreciating full well that increasing public expenditures are a normal condition in a sound and healthy society.

Development of Expenditures and the Historical Order in which they Appear. — It is instructive to consider the historical order in which the objects of public expenditure appear. This order throws a strong light upon the evolution of industrial society, and of civilization in general. This is an almost unworked field of investigation, but it is an extremely interesting and important one. This order can be presented here only in the most general terms, and in these terms it is somewhat as follows: expenditures for (1) external security; (2) security within the community; (3) promotion of material interests; (4) benevolence (transferred in part from the Church at the time of the Reformation; (5) education in its various phases; (6) labor. In a general way the organization of the departments of the federal government corresponds with this order. In 1789, the Treasury, War, and State departments were organized, also the Department of Justice, Supreme Court, and the Navy Department; the Post Office Department was organized as a distinct department in 1829; the Department of the Interior was organized in 1849; the Department of Labor as a separate department (without representation in the Cabinet) in 1889; the Department of Agriculture as a separate department (with representation in the Cabinet) in 1889; the Department of Commerce and Labor (with representation in the Cabinet) in 1903. The modern nation has been spending an increasing proportion of its resources for education. We use nation in the general sense here, including all the subdivisions of the nation. We find a rapidly increasing item in the budget of the modern municipality for public libraries, in which line of expenditure the United States is leading the world. Lately, in the modern budget, we find expenditures which are distinctively for the promotion of the interests of labor.

Most interesting is it to observe, within the last few years, an expenditure in the national budgets for international agreements and arrangements to promote the interests of labor. In 1900, the International Association for Labor Legislation was formed, and its permanent Bureau was established at Basle, Switzerland, in 1901. As the competition of labor and capital was international, it had, in the opinion of many careful observers, become necessary to safeguard the interests of labor by international agreements. Consequently, we find that this international association receives subsidies from most European governments, and a small one from the United States through our federal Bureau of Labor. And, in 1905, as we have already seen, an international treaty was entered into by Italy and France for the advancement of the interests of labor and for mutual protection of employers. Small indeed are these items, but they are significant as beginnings.

We must, however, analyze the public expenditures of the various departments more carefully to understand fully the order of development in the objects of public expenditures. The whole expenditure of the Department of Agriculture is an expenditure to promote material well-being, and this has become one of the great departments in modern government. The Department of the Interior is also largely concerned with expenditures to promote the general material welfare. We have in the Department of Agriculture such items as forestry, food adulteration, botany, seed tests, pomology, entomology, agricultural soils, irrigation investigations, and road inquiry.

We cannot lay down any hard and fast line between public and private expenditures, because there is a perpetual shifting from the satisfaction of wants privately to the satisfaction of wants publicly, and sometimes even, though less frequently, the reverse process. The railways of Prussia were once private, and their receipts and expenditures had little to do with the Prussian budget. Now the receipts are public receipts, and their expenditures are public expenditures. The addition to the budget, however, means necessarily no additional burden resting on the people. Indeed, if the people are well served and served for a lower price than formerly, with less relative cost of operation, the burdens of the people have been lightened, and this is what is generally claimed in Prussia. Let us take the case of a city in which watering the streets is a private matter paid for by private subscription. The expenditure becomes a public expenditure when the city takes upon itself this function, but if the public expenditure is no greater than the private expenditure, there is no additional burden. If the service is better performed, and the total burden more fairly distributed by taxation than by private subscription, — as sometimes, at least, happens, — there is a positive gain. The increased density of population has been mentioned as a cause of increased public expenditures. A suburb without any municipal organization may maintain electric lights in the streets by private subscription. The expenditure appears in no public budget. This suburb secures some kind of a municipal organization, and that which was a private expenditure becomes a public expenditure. Again, however, there is no increased burden resting upon the people; their wants are satisfied through a different channel.

When we compare modern times with ancient times, we find that an increasing proportion of the public expenditures are incurred for objects which directly benefit the people, and relatively a decreasing amount for objects in which they have comparatively little concern. This finds most striking exemplification in a comparison of the budget of France in 1789[1] with the budgets of 1906 and 1907, which we take simply as typical modern budgets.[2]

EXPENSES—1789	LIVRES[1]
Cost of collection and reimbursements (does not include cost of collecting taxes farmed out)	31,478,000
Consolidated debt — included portion made up of annuities	162,486,000
Interest, etc., on remaining portion of debt	80,527,000
Pensions	29,560,000
Royal family and princes	33,240,000
Total	337,291,000

[1] A livre is slightly less than a franc — say 2 per cent.

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[1] Necker's "Budget," May, 1789, rearranged by the author of the article in the *Dictionnaire des Finances*.

[2] On page 570.

"This formed the total deduction before provision could be made for general service of the government," in which we have the following items: —

Expenses — 1789 (*Continued*)	Livres
War	100,548,000
Marine and colonies	40,900,000
Foreign affairs	7,480,000
Justice	6,353,000
Interior	8,249,000
Financial administration	5,801,000
Public works, agriculture, and commerce	11,907,000
Public instruction and fine arts	1,227,000
Public worship ("cultes")	2,188,000
Total	184,653,000
Brought forward	337,291,000
Grand total	521,944,000

It will be observed, in comparing these budgets, that the French court consumed a very large proportion of the expenditures of 1789; and that of what remained a very large proportion was consumed by the public debt, the army and navy; and that for education and the promotion of general welfare the expenditure was relatively insignificant. A study of the table on next page reveals one of the reasons why it is that France is able to endure so large a public expenditure. Wants are thereby satisfied, and what is expended returns to the people in services.

The view here presented of public expenditures is undoubtedly one which is reassuring. The impression must not be gathered from this that there is no need for care and watchfulness. As public expenditures increase, it becomes of more and more importance to secure wise and prudent administration of all our resources. Wastefulness becomes more serious than ever before, and the benefits from excellence in administration increase correspondingly. Without pronouncing any opinion upon what is called imperialism, we may also say that the enormous increase in expenditures, in one way or another connected with war, which we have seen during the past few years, cannot be viewed without misgiving. Even the most optimistic Englishman cannot regard with complacency a national administration approaching in its expenditures £150,000,000 sterling, when over one third is for the army and navy. Even if there is no danger of the bankruptcy of any great modern nation, the thought must at least occur to one that it is a pity that, with so many public needs unsatisfied, with such large possibilities in the way of improvement of education and our general environment, such enormous and almost incomprehensible aggregates of wealth should be annually expended for warlike purposes.

Branches of Expenditures	1907 Francs	1906 Francs
Finance: public debt	1,233,528,964	1,232,411,902
President, Chamber, Senate	19,337,500	13,942,500
Other services	304,675,525	298,100,361
Justice	38,719,250	37,433,600
Foreign affairs	19,110,000	17,685,360
Interior	104,066,146	89,113,177
War	779,986,139	718,690,882
Marine	312,169,819	325,081,941
Instruction	261,367,546	251,240,010
Fine arts	17,464,524	17,448,140
Worship	507,130	540,130
Commerce and industry	56,490,303	56,236,271
Labor, etc.	12,549,019	....
Posts and telegraphs	290,030,085	267,420,410
Colonies	109,473,739	110,415,100
Agriculture	45,215,146	45,057,684
Public works	229,134,470	228,374,599
Total	3,833,825,305	3,709,192,067

Development of Public Expenditures with respect to Regularity and Irregularity. — Public expenditures are regular and irregular, or ordinary and extraordinary, with respect to their occurrence. Whether the expenditures are regular or not depends upon the nature of the goods and services for which they are incurred. A large force must be employed in the army and navy and civil service; and regular expenditures must be made for these branches of the public service. On the other hand, there are great monumental works like the construction of a capitol for which the expenditure is irregular in character. War, famine, and pestilence occasion irregular expenditures. It is to be noticed, however, that in any scientific arrangement regular expenditures increase and irregular expenditures decrease. This is particularly the case in a large country, and especially so when long periods of time are taken into account. It is an end to be striven for in the interest of orderly finance. In India there is a regular famine fund to make provision for the recurring famines, so that even expenditure of this kind takes on the character of regularity. The longer the period of time and the larger and richer the country, the greater the possibilities of establishing regularity, inasmuch as chance elements decrease under these circumstances. The construction of a post office building in one city is an unusual event, but, when the United States as a whole is taken into account, it is quite possible to provide regularly for post office buildings.

It is further to be noticed that preventive measures rather than relief measures increase regular expenditures. This is one argument in favor of constant preparation for war. The war expenditures are smaller and less disturbing when they come. It need not be remarked that this financial advantage may be secured at a loss otherwise. Furthermore, there is a certain conflict of interests between administration and legislation. Those who are administratively responsible for expenditures prefer to have budgets voted for long periods, as in this way they can accomplish most with a given sum. On the other hand, a legislative branch of government desires that budgets should be voted for short periods for the sake of stricter control.

It is also to be noticed that the constitutional provisions against debts in the states of the American Union promote regular expenditures. Where loans are not possible, it is frequently necessary to spread expenditures over long periods in order that the burden may not be too great at any one time. It is in this way that in the

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state of Wisconsin, for example, the Historical Library Building was built; and many of the buildings of the State University have been constructed under like conditions. It is in this way that the new Capitol is being built. Certain sums are appropriated each year for a series of years.[1]

Terms used in Public Expenditures. — The terminology of public finance, and in particular of public expenditures, has occupied a great deal of attention on the part of economists, and receives elaborate treatment in the Census Report, 1907, on *Wealth, Debt, and Taxation.* It is here possible to point out simply a few distinctions and to define a very few terms; but in a more elaborate and technical treatise on public finance it would be necessary to give a great deal of attention to this topic.

Instead of the term "public expenditures," we sometimes have the term "financial needs." This is employed particularly by German writers, who, however, employ it interchangeably with expenditures. The two terms represent two approaches to the same subject. Educational needs, treated from the financial standpoint, become expenditures for education. "Expenditures" seems to be the more natural term.

We must distinguish between expenditures in the narrow sense and investments. In the broad, general sense, all governmental outlays would be designated as expenditures. In a narrow sense we use "expenditures" for those outlays which are not expected to yield a direct, material return, and "investments" for those outlays which are expected to yield such a return. An investment would mean an outlay of capital rendering a direct income equal to current interest. If the return is less than current interest, it partakes of the nature of expenditures in the narrow sense of the term. Money expended in improving and extending the state railways of Germany, for example, would be regarded as investment. Money expended on the streets of cities are expenditures. This distinction is one of increasing significance because governments are extending their functions in the industrial field. In all sound public financiering, especially in all action concerning public debts, the distinction must be made between an outlay of capital which will yield a return at least equal to the current rate of interest and those outlays which yield their return in direct and immediate satisfactions, but do not make any direct and immediate provision for interest payments and final amortization.

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[1] The authors hope by taking concrete illustrations from their own environment that they will accomplish two purposes: (1) that the text will be rendered more real and less abstract, and (2) that their readers will be encouraged to seek illustrations from their environment. One aim which is constantly kept in mind is the importance of cultivating the power of observing and reflecting upon economic phenomena.

It is generally conceded that narrow debt limits should not be applied in the case of cities to investments.

The census volume just referred to makes a further distinction between investments and outlays as follows: "Under *investments* are included all transactions of national, state, and municipal governments connected with the purchase, sale, or possession of real property or securities held exclusively for investment purposes, and the loan of public money to individuals, corporations, or other civil divisions. Such transactions are of two classes: first, those of the sinking, investment, and public trust funds in which or through which the nation, state, or municipality invests money for the sole purpose of deriving interest, rent, or other income therefrom; second, the transactions of a more temporary character by which the national, state, or municipal government receives interest on current cash deposits and on deferred payments of taxes and special assessments."[1]

"*Outlays* — 'Outlays' are the costs, paid or payable, incurred by nations, states, and municipalities in the purchase of lands, in the purchase or construction of buildings and other structures, and in the equipment, improvement, and additions to public works which are more or less permanent in character, and which are used by the nations, states, and municipalities in the exercise of their general functions or in connection with the business undertakings conducted by them. Governmental outlays partake of the nature both of commercial expenses and of commercial capital outlays. Like commercial outlays, they are to secure more or less permanent acquisitions; but unlike them, they do not secure property applicable under any ordinary condition for meeting liabilities. Further, they are always a legal charge against revenue, while capital expenditures in commercial undertakings are always recorded in the accounts with capital."[2]

A further important distinction is that between expenditures for works of a permanent character and those of a more temporary character. The products of expenditures of a permanent character are those which keep on yielding utilities indefinitely — a public park, for example. The expenditure for utilities of a temporary character are those which must be perpetually renewed, like an annual expenditure for the maintenance of public parks. This is a distinction which must always be observed in sound public finance.

Classification of Public Expenditures. — Many principles of classification have been adopted. An important one is that made with respect to political units: —

I. Central.
II. Intermediate.
III. Local units.

This classification can be extended indefinitely, but it gives us the three main classes of units. In our country the central would be the federal, the intermediate would be the separate states, and the others, the local. An examination of expenditures with respect to these units throws a good deal of light upon our general political evolution. It especially helps us to determine whether or not there is a tendency in the direction of centralization, although expenditures alone are not conclusive. Sometimes fear has been expressed lest the central governments should expand at the expense of the local governments. It is thought by some that we are living in a period of centralization. The statistics of public expenditures do not bear this out, as local expenditures seem to be increasing more rapidly than those of central governments. There may be some ground to apprehend that in the United States the cities and federal government are increasing in importance more rapidly than our commonwealths. The states which make up the Union have lost somewhat in relative significance, if we may judge from the comparison of public expenditures of the various political units.[1] There appears to be, however, some ground for thinking that the states are again becoming of greater importance in our general structure of government. We find, for example, that the expenditures of the state of New York have increased from not quite $10,000,000 in 1881 to nearly $22,000,000 in 1902. This is a budget which would seem to indicate activity, although, to be sure, far less than the budget of New York City. Our Western states are developing remarkable educational systems, reaching from the common school to the university, and some of our states are developing forest property, and a department of forestry. These are, perhaps, ample illustrations of the growing significance of the state. But we must await future developments in order to ascertain the extent of the movement.

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[1] p. 956.

[2] p. 954.

The following is a very simple classification made with respect to objects for expenditure: —

I. Expenditures for security.
II. Expenditures for the poor and unfortunate.
III. Expenditures for education.
IV. Expenditures for commerce, diplomacy, and government.

The following is a more extensive classification:[2] —

I. Head of the state.
II. Legislative bodies.
III. Public administration, including central departments.
IV. Army and navy.

I. Head of the state — emperor, kings, grand dukes, etc., Germany. Presidents and governors — representing the sovereignty of the state.

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[1] It must again be emphasized that expenditures alone are not sufficient evidence to enable us to speak positively on this point. In general, however, there is a correspondence between the amount of public money expended by a political unit and its social significance.

[2] This is taken largely from Cossa's *Taxation: Its Principles and Methods*, Part II, Chap. III, Classification of Public Expenditures.

II. Legislative bodies — Congress, legislatures, county boards, county councils, municipal councils.
III. Public administration — central, intermediate, local.
  A. *Financial administration.*
    1. Treasury.
    2. Public domain — (regalia) — fiscal monopolies, public business. Further subdivision possible.
    3. Administration (especially collection) of taxes.
    4. Public debts. (Sinking funds, etc.)
  B. *Administration of foreign affairs* — diplomacy, consulates, etc.
  C. *Administration of the interior.*
    1. Internal security.
      Courts.
      U.S. marshals.
      Constables.
      Police, etc.
      Repression and prevention.
    2. The administration designed to promote general public welfare.
      a. Intellectual and moral welfare.
        Education in its various phases. Statistical bureaus, etc.
      b. Physical welfare.
        (*a*) General economic well-being: economic welfare in general — the promotion of manufactures, agriculture, and commerce. Weather bureau.
        (*b*) Life saving in general. Public health. Sanitary administration.
        (*c*) Charitable and provident institutions.
        (*d*) Public works, including model institutions, etc., such as farms.
        (*c*) The promotion of the interests of labor. Here there is overlapping, for the labor bureau is educational also.
        (*f*) Pleasure, recreation, and miscellaneous.
IV. Army and navy.
  Regular army and navy militia.

The student, and even the general reader, will find it especially instructive to study the financial reports of the federal government and of our states and cities, and arrange the items of expenditures under these various heads. If access can be had to reports covering a considerable number of years and different countries, it will be found that an examination of them will throw an immense amount of light upon the nature of modern civilization and its direction.

It is also instructive to compare expenditures on account of the head of the state in various countries, and particularly to contrast monarchical and republican countries. It is important to discover great historical tendencies, and to contrast different periods of time, especially as regards monarchical expenditures. It is beyond all question that relatively, in the civilized world, this is an item of declining importance. At the present time, the king of a great country like Prussia or England supports a magnificence of state which is altogether out of keeping with the ideas of a democracy or a republic. Four or five milllons of dollars per annum for a modern monarch is not a large expenditure. On the other hand, in contrast, the expenditures of the President of the United States (including those connected with the executive mansion, contingent expenses of all sorts, and presidential clerks) amount roughly to $150,000. However, as regards the expenditures of a modern monarch (like the German Emperor William II), a detailed examination shows that custom and tradition, as well as the will of the monarch, cause a large part of his income to go for public purposes, and that his wealth has been largely socialized. The king is no longer the typical rich man.

On the other hand, the expenditures on account of the American Congress are unprecedented in amount among the expenditures incurred on account of legislative bodies. The world has never seen anything of the kind before, and nothing parallel to it can be found in any other country. Among other things, this goes to indicate, as contrasted with Germany, the great importance of the legislative body which is supposed to represent the people directly and immediately and to carry out their will. In aristocratic countries the legislative office is sometimes an unpaid office. This is the case in British and German parliaments, the idea being to favor wealth and to counteract democratic tendencies — an aim not accomplished at present. A democracy, however, is more likely to insist upon a legislative office being a paid office; and, in some of the German states, although the payment is small, its acceptance is compulsory for the members of the legislative bodies.

Expenditures incurred in the administration of foreign affairs are of increasing importance on account of growing economic internationalism. We would here have two main classes; namely, expenditures on account of diplomacy, those representing the purely political side of government, and expenditures on account of the consular service, representing the business interests of the country. Boundaries and surveys are expenses which would come under this general heading.

With regard to the administration of foreign affairs, any one nation is limited in what it can do by international customs. We Americans, for example, cannot force our ideas on other nations. Certain standards of dignity and propriety have been established with respect to the mode of life for diplomats, and, if we depart from these, we do so at a loss which every diplomat in the service of the United States keenly feels. The most that we can do is to exercise pressure in what we believe to be the right direction, and that is the direction of democratic simplicity.

When we examine expenses incurred in the administration of justice, we notice a large increase with the growth of democracy. In earlier times in countries like England and Germany, the administration of justice was to a greater or less extent "patrimonial," being connected with certain estates. The duty of administering justice went with the great estate or manor and involved little expense. As people take things into their own hands they must pay their own expenses. Democracy, in its progress, means large public expenditures.

The new humanitarianism of the age, which, in a way, is one expression of democracy, involves large expenditures, as seen in education, modern reformatories, etc. But it is believed by the advocates of humanitarianism and democracy that these expenditures are worth while.

It is when we come to expenses incurred in the promotion of the general welfare that we see the most remarkable and edifying phenomena that greet us in the treatment of public expenditures. This has been seen in the data already given, and will become increasingly manifest as the student carries on his statistical studies in this field.[1]

QUESTIONS AND EXERCISES

1. Define public finance. Why should it be regarded as a part of economics? Can you give any reasons why it should be regarded as a separate science?

2. Can we spare money for taxes only when we have an income affording a surplus over and above necessities? If the money paid for taxes is used to provide us with necessities, is there any good ground for the doctrine that an income sufficient to afford a minimum of subsistence should be exempted from taxation in the case of an income tax?

3. What various meanings do you ascribe to the enormous increase in public expenditures during the nineteenth century?

4. What would be the consequences if the government of the state in which you live should strive for the largest possible amount of revenue, and then govern its expenditures so as to consume the entire state income?

5. Discuss the differences between public expenditures and the expenditures of a private household. Would you regard it wise on your part to make any expenditures with the idea that a benefit to some one would accrue one hundred years later? fifty years later? twenty years later?

6. What considerations must govern us when we attempt to answer the question, "What is the proper proportion between public expenditures and the total income of society?"

7. Discuss Wagner's rule. Is the fact that public ownership increases the permissible proportion of social income that may be used for public

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[1] For statistical matter bearing upon the subject-matter of this chapter, see Appendix A.

purposes an argument for public ownership of railways? If so, why? If not, why not?

8. Discuss Wagner's law of increasing public expenditures and show its significance.

9. Discuss economy, parsimony, frugality, extravagance in public expenditures, and give as full illustrations of each as you are able (*a*) from your own observation, (*b*) from your reading and conversation and correspondence with others, public officials included. Make this the subject of a topic for a class report.

10. Discuss the historical order in which items of expenditure appear in national, state, and local governments. Give illustrations from the state and from the local political unit in which you live. Give any illustration which may occur to you of taxation which lightens the burdens of the taxpayer. Does it afford you satisfaction when you buy postage stamps to know that the money paid flows into the public treasury, and not into the treasury of a private corporation?

11. If you were permanent Secetary of War, would you desire to know for a long number of years in advance the yearly sums that could be expended on the army? Could you thus make the same amount of money accomplish more than if dependent upon annual grants uncertain in amount? What would be your view as a member of Congress? Is a state university to be controlled in its expenditures by the legislature as rigidly as Congress should control the administration of the army? If so, why? If not, why not? Would you make any distinction in this respect between the army and the navy?

12. Point out the different kinds of public expenditures and distinctions between expenditures and investments, and show their significance. If public parks, like publicly owned railways, yield permanently services to society, why should different rules of financiering apply to them?

13. Present such statistics as you may be able to gather showing relatively and for as long a time as possible the increases in public expenditures in the federal government, in your own state, and in your own local political unit (city, county, town, etc.), and give all the evidence that you can secure showing the significance of the movement.

14. Show the various ways in which the increasing degree of self-government and the growing altruism of the age bring about an expansion of public expenditures. Is it worth while?

REFERENCES

Government publications generally.

As illustrative particularly of the expansion of government expenditures and public work, the Year Book of the Department of Agriculture.

For growth of militarism, take publications of the Department of War and publications of similar departments in other countries.

For general statistical data, Martin's *Statesman's Year Book* is as reliable as anything in English. For our own country, see Finance Reports of the Secretary of the Treasury and census volumes, especially the volume on *Wealth, Debt, and Taxation.* For making a broad survey of the federal expenditures of the United States, perhaps no single publication is more useful than the annual "Letter from the Secretary of the Treasury transmitting estimates of appropriations."

CHAPTER XXXIII

PUBLIC REVENUES FROM LOANS AND GOVERNMENT OWNERSHIP

Classification. — Having decided what expenditures it is possible or desirable to make, the question next arises how the necessary revenues may be raised. Differing classifications of public revenue have been almost as numerous as the writers who have made them. Without entering into a discussion of the reason for such differences, we may present at once a classification which is in general harmony with the usual treatment of the subject. It should be distinctly understood that the figures accompanying the classification are only approximately correct, as it is still impossible to fit public accounts, particularly those of the national government, to that classification which long study has shown to be most serviceable to the economic student.

The figures in Table I are derived from the Census Report entitled *Wealth, Debt, and Taxation* (Part II, Table 2, and Part IV, Tables 2, 12, 13, 14, 15, 18), and from Census Bulletins 20, 45, and 50. The figures refer, for the most part, to the fiscal year ending June 30, 1903, but this is not true in all cases. In addition to the "receipts from revenues," as defined by the Census Bureau (*Wealth, Debt, and Taxation*, Part IV, Table 1), Table I includes $119,722,845 for public debt and $11,391,791 for revenue from public domains, not included in the census totals. The $119,722,845 represents the *increase* of public debt in one year, *i.e.* the difference between the receipts on account of the public debt and the payments on the same account, but it takes no cognizance of the increase of cash and other assets available for the payment of the debt. In arriving at the total, $4,000,000 has been allowed for the increase in the debt of the minor civil divisions other than counties and cities having more than eight thousand inhabitants. The $11,391,791 represents an estimate of the receipts from the sale of public lands by the national and state governments. This item is classed by the census statisticians with the nominal, or, in their designation, the "temporary" receipts, on the ground that when real estate is sold, the revenue is offset by a corresponding decrease in the capital assets or the aggregate

TABLE I

CLASSIFICATION OF PUBLIC REVENUES WITH APPROXIMATE ESTIMATES OF THE YIELD OF EACH CLASS—NATIONAL, STATE, AND LOCAL REVENUES: 1902.

	Amount	
	Absolute	Per Cent
A. *Temporary Revenues*	$119,722,845	**6.27**
I. Public loans by the sale of bonds, etc.		
II. Public loans by the issue of treasury notes, etc.		
B. *Permanent Revenues*	$1,789,750,550	**93.73**
I. Regular revenues	1,715,111,431	**89.82**
1. Derived directly from government ownership	255,194,821	*13.36*
a. Revenues from public domains	16,503,339	0.86
b. Revenues from public industries	217,003,251	11.36
c. Revenues from interest, investments, etc.	21,688,231	1.14
2. Derived from the incomes of private persons and corporations	1,459,916,610	*76.46*
a. Fees	40,779,102	2.14
b. Special assessments	39,027,852	2.04
c. Taxes	1,380,109,656	72.28
II. Irregular and miscellaneous, fines, forfeits, subventions, gifts, etc.	74,639,119	**3.91**
Grand total	1,909,473,395	100.00

value of the fixed possessions of the government. The justice of this treatment is plain in the case of municipal buildings and other real estate forming part of the fixed plant of the municipality, but it is not so clear in the case of the public lands of the state and national governments which for the most part yield no revenue and resemble the merchandise or stock rather than the capital or plant of the private business. In the figures given in the table, ineradicable duplications to the amount of about $70,000,000 occur, although most of the common duplications such as transfers and refunding operations generally have been eliminated by the excellent classification employed in the Census Report. It should be added, also, that in practice it is impossible to differentiate clearly among taxes, fees, revenues from public domains, and revenues from public industries, and that the assignment of the detailed items to these classes is in some cases quite arbitrary.

Temporary Revenues and Public Debts. — The modern State follows a policy of deficit financiering. The great and increasing expenditures, which have been described in the preceding chapter, entail burdens too heavy to be borne, at least in the first instance, by taxation alone, and recourse must constantly be had to the public credit. One year with another, about one fourth of the annual revenue of England is used in the payment of debt or interest upon debt; and as was shown in the French budgets for 1906 and 1907, given on page 570, almost one third of the total expenditures of France is devoted to the same purpose.

In the last half of the nineteenth century, the aggregate public debt of the civilized world increased enormously. According to the best estimates, the indebtedness of the *national governments* of the world, which amounted to $7,627,692,215 in 1848, had risen to $27,524,976,915 in 1890, and since that time it has probably increased. Figures showing the total and *per capita* debt of all governmental divisions of this country are given in Table II. From this statement it appears that between 1890 and 1902 the aggregate public debt of this country increased over $800,000,000, the greater part of the increase being ascribable to the astonishing growth of municipal and local indebtedness, which increased nearly 90 per cent in the interval. It is true that the total public debt has diminished since 1880, that the *per capita* debt has fallen from $82.99 in 1870 to $35.50 in 1902, and that according to Census estimates of national wealth (not very trustworthy), the public debt covered only $2.85 of each one hundred dollars of national wealth in 1902, as against $3.06 in 1890, $6.97 in 1880, and $10.64 in 1870. But this diminution of the aggregate debt is due to the extraordinary progress which our tariff surpluses have enabled us to make in reducing the debt contracted during the Civil War; and the normal movement in the long run is probably toward an increase of the public debt, at least absolutely and *per capita,* if not in proportion to the national wealth.[1]

TABLE II

PUBLIC DEBT OF THE UNITED STATES

Net Debt Outstanding

	TOTAL IN MILLIONS OF DOLLARS				PER CAPITA			
	1902	1890	1880	1870	1902	1890	1880	1870
Total	$2790	$1989	$3043	$3200	$35.50	$31.76	$60.66	$82.99
National gov't. .	925	852	1919	2331	11.77	13.60	38.27	60.46
States and territories.	235	211	275	353	2.99	3.37	5.48	9.15
Counties.......	197	145	124	188	2.50	2.32	2.47	4.87
Cities, villages, etc.	1387	744	707	328	17.65	11.88	14.09	8.51
School districts .	46	37	18		0.59	0.59	0.35	

The great increase of public debts is due principally to two causes, wars and public works. The former are misfortunes, losses, however the result is expressed. The loss comes, not in contracting a debt, but in spending and destroying the property consumed by war. This loss cannot be postponed by a debt. It comes out of wealth existing at the time, no matter what arrangement is made. In former times each man bore the loss as it happened to fall on him. The modern method differs in just this, that the loss is transferred to the whole public. This, again, may be done in two ways. A tax may be levied at the time sufficient to pay all expenses, or a debt may be incurred and the necessary taxation spread over a longer period of time. In practice the latter proves far the best, for at least a part of the expenses. It gives capital time to adjust itself to the extraordinary demands. A war debt is, therefore, not a misfortune, though it stands for a previous misfortune — war.

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[1] According to Census estimates, the *per capita* debt of the United Kingdom in 1904–1905 was 3.93, that of France 4.86, and that of Italy 2.25 times as great as the *per capita* debt of the United States in 1902, while that of Sweden was a trifle less than the *per capita* debt of the United States.

The case is clearer when we consider debts contracted for public works. Under this head we include primarily productive enterprises like railways, canals, forests, gas works. These, when purchased or constructed by the government, are the occasion of debts, sometimes enormous in amount. It might seem possible to pay for them by immediate and heavy taxation, since no more is taken out of the people than when the money is borrowed. But the national wealth is not like an ocean, alike in all its parts and instantly filling up where water is dipped out. It makes all the difference in the world where you dip. Here are men who have capital invested in a productive business; here are others who have capital lying idle. The State decides to make a public investment, and calls for capital. If it collects it by an immediate and heavy tax, the first class have a part of their employed capital withdrawn, and their business is crippled or ruined. The others have some of their capital withdrawn, but the most still lies idle. The best that can be done in such a case is for the first class to borrow of the second, which only makes private debts instead of public ones — a much more burdensome condition of things for the national industry. The wiser modern method is for the State to borrow the unemployed capital and leave the employed capital intact, then imposing a moderate tax which can be paid out of annual income. If the expenditure in question is an investment, it presumably pays for itself in time without requiring taxation.

This brings us to the relation between taxes and debts. Taxes should never be so heavy that they cannot be paid easily out of annual income. If they trench upon national capital, they derange private industries disastrously because they are imposed upon all without regard to the nature of their investments. But while taxes cannot safely exceed the national disposable surplus for each year, it does not follow that the State may not take capital as well as surplus for its undertakings; only this capital must be taken from those who have *uninvested* capital. This cannot be done by any method of general contribution like taxation. It can only be done by public loans. Whether the loan is a wise thing or not depends altogether on the nature of the State's investment. If the State takes this capital ever so wisely and wastes it, the people have lost just so much capital. If, on the other hand, the State takes capital which was uninvested and therefore unproductive, and invests it in a profitable undertaking, the net result to society is an additional profit. Public debts are no indication of national poverty. Whether a nation is growing poorer or not depends not on its indebtedness, but on its productiveness relatively to its expenditures. Public debts are not a good thing in and of themselves, but they have incidental advantages which offset some of their disadvantages.

Having noticed the natural limits of both taxation and borrowing, we have now to ask, What kind of expenditures should be provided for by each? In general the answer is easy, though details are troublesome at times. Ordinary expenditures, that is, those which recur with sufficient regularity so that they can be foreseen and estimated in advance, if not provided for by receipts from domains and industries, must be met by taxation. If the State cannot do this, it is a confession that ordinary expenditures are in excess of the disposable income surplus of the nation, a state of things which means bankruptcy if continued long enough.

Extraordinary expenditures, such as national misfortunes — war, flood, etc., — and public investments, — railways, city gas works, etc., — should be met by loans. The function of loans thus becomes a double one: (1) the distribution of unavoidable losses, so that industry is as little disturbed as possible; and (2) the investment of national uninvested capital in productive public enterprises.

There is a tendency, springing out of fright partly premature, to place undue constitutional restrictions upon the power to create debts. This tendency ought to be checked. It places states and cities at a disadvantage as compared with private corporations. It also tends to throw into the hands of private corporations enterprises which cannot be paid for out of one year's revenues, and yet might advantageously be acquired by the public. At the present time excessive limitations, unworthy of a free people, make it impossible for some cities to carry out necessary public improvements, although these improvements would not impose the slightest real burden upon the taxpayers. In Chicago recently, to take one of many examples which might be cited, after a prolonged and exceedingly expensive campaign for the improvement of the street-car service, the city was prevented from carrying out a carefully devised plan of reform by a court decision which held that an issue of street railway certificates increased the indebtedness of the city beyond the limitations prescribed by the constitution. Provision should be made for the extinction of all debts within thirty-five years, or say forty as a maximum, that the present may not unduly burden the future; and especial precaution should be taken against hasty action in incurring indebtedness. But rigid limitations which prevent municipalities from offsetting part of their debt by the value of waterworks, lighting plants, and other assets which yield a monetary return, have no place in a scientific system of public finance.

PERMANENT REGULAR REVENUES

The Public Domain. — By domains we usually mean agricultural and mineral land and forests owned by the State and managed in the interest of the public revenue, although we might logically subsume under the term the streets and other public property of cities, with all those valuable franchises and privileges which go with them. As appears from Table I, the revenues from this source constituted less than 1 per cent of the total receipts in 1902, and if the corresponding expenditures were shown, the net earnings of the public domain would appear even smaller, possibly a *minus* quantity. Taxation is the great source of public revenue to-day.

Until a comparatively recent date this was not the case. In early feudal times the king had large estates of his own from the produce of which the government was largely supported, and although he had certain military rights over his subjects, he had very limited rights over their property. Later, the king became a public rather than a private person, and a large part of the crown estate became the property of the public; but even then taxation was relatively unimportant, and the State relied principally in times of peace upon fines, escheats, fees, crown prerogatives, — or certain dues which the king was entitled to collect as of his own right, —

and upon the proceeds of the public domain. Blackstone, the great English jurist, writing in 1765, classified taxation among the "extraordinary" revenues of the sovereign; and in some of the German principalities the government was enabled to get along without taxation in times of peace, down to the close of the eighteenth century. Real democracy not yet having been achieved, the people distrusted taxation and resented its imposition, while the sovereign wisely clung to that species of revenue which was independent of the people's caprice. "The public domains," said Bodin, the great political philosopher of France in the latter part of the sixteenth century, "should be holy, sacred, and inalienable either by grant or by prescription."

But as democracy developed and the representatives of the people gained control of the finances, a new policy was everywhere adopted. If State management was uneconomical and wasteful, and if the government could obtain all the revenue needed by taxation, why preserve the wasteful methods of management, — why not turn public property into private property, to be developed and multiplied through the vitalizing force of individual self-interest? *The great truth was realized that the property of individuals — when subject to taxation and regulation — is no less part of the great patrimony of the State than those lands and forests whose title is retained by the government itself.* This doctrine was generally accepted by the greater countries of the world during the eighteenth century, so that Adam Smith, in defending it in 1776, was able to write that "there is not at present, in Europe, any civilized state of any kind which derives the greater part of its public revenue from the rent of lands which are the property of the state. . . ." This philosophy was dominant when our national government was created in 1789, and has guided our national policy ever since.

Land Policy of the United States. — By exploration and occupancy, war, and various cessions, the federal government has acquired, since the Revolutionary War, a magnificent domain of 2,252,244 square miles, details concerning whose disposition may be found in Table III, p. 589. Now, while we have consistently followed the doctrine of alienation until very recent years, trying, apparently, to get rid of the public domain as rapidly as possible, one observes historically a very important change in the manner of development. In the early years of the Republic, large revenues were expected from the sale of public lands; it was the financial side which, according to Alexander Hamilton, claimed "primary attention."[1] Until about 1800, the policy was to sell the land in large blocks, even though it went to speculators; this was followed by an attempt to sell small holdings to actual settlers, the credit system being used with disastrous results; later (1830), the preëmption policy was introduced by which *bona fide* home makers were given certain advantages in purchase; and finally came the Homestead Act of 1862, the Timber Culture Act of 1873 (now repealed), and the other less important laws by which actual settlers can obtain homes practically free of cost. Our original aim was to develop the country as rapidly as possible, and secure as much revenue as possible from the sale of public lands. We still aim to develop the country, but the idea of profit has been replaced by the more humanitarian policy of giving land to the landless. To exaggerate the evolution of policy for the sake of emphasis, it may be said that we began with a productive policy, and modified it with a distributive policy; that in the beginning our object was the greatest good, while now it is the greatest good to the greatest number, or, in terms more appropriate to the exact case in hand, the greatest possible use of the public domain consistent with widespread participation in that use.

The policy of national development regardless of immediate revenue to the government has been also carried out by enormous grants of lands for the endowment of education and the subsidization of canal, railway, and internal improvement companies. Our public lands have been used for expenditure rather than revenue, for bounties rather than profits. Just what has been done with the public domain is shown in Table III, which should be carefully studied. On the mainland of the United States we still (1907) have left nearly one half as much land as we have disposed of, unreserved, and still unappropriated; while if we take account of Alaska and public reservations, the government might yet, as was said some years ago, "repeat its sales and gratuities acre for acre, without exhausting its reserves of land." But, of course, the best of the lands have gone. On June 30, 1907, there still were left unappropriated and unreserved 774,438,420 acres, although 368,028,850 acres of this area were situated in Alaska, unsurveyed and of very doubtful value.

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[1] Quoted by Donaldson in *The Public Domain*, p. 198.

TABLE III

Disposition of Public Domain: June 30, 1904

Disposition	Acres
1. Homestead and timber culture entries — final	106,240,464.25
2. Pending homestead entries — final and commuted .	39,525,840.00
3. Private land claims — scrip and other	34,604,827.84
4. Allotment to individual Indians, and half-breed scrip	14,408,079.86
5. School and agricultural college grants	76,731,243.00
6. Miscellaneous grants to states and territories (partly educational)	87,305,203.05
7. Wagon-road construction grants	2,867,474.49
8. Canal construction grants	4,598,698.32
9. River improvement grants	2,246,251.91
10. Railroad construction grants	117,550,292.37
11. Cash sales — Indian cessions, mineral lands, timber and stone claims, and miscellaneous cash sales. .	287,001,612.29
Total alienated, excluding Alaska	773,079,987.38
12. Reservations — forest, reclamation, parks, military, Indian	194,587,475.62
Total alienated and reserved, excluding Alaska.	967,667,463.00
13. Area unappropriated and unreserved, excluding Alaska	473,836,402.00
14. Area unappropriated and unreserved in Alaska . . .	368,035,975.00
Total unappropriated and unreserved	841,872,377.00
15. Total land surface in public domain, including Alaska	1,809,539,840.00
16. Total land and water surface in public domain, including Alaska	1,884,021,760.00

Forest Lands. — The policy of alienation, while on the whole sound, is subject to certain limitations which it is very important to note. First of these is the case of forests. The ruthless denudation of our timber lands, the striking advance in the price of lumber indicating that the supply has not kept pace with the demand, and the meteoric development and rapid decline of the lumber industry in many localities of the Northwest, all combine to demonstrate that alienation and private ownership have failed to produce that careful industrial management which conduces to the greatest use and the greatest good in the long run. More important still, we have come to realize that the most productive use of other great natural resources has not been subserved by the private ownership of the forests. Climate and rainfall, the regular flow of streams, the success of the great irrigation works which we are building, and the proper development of our mines, all depend more or less upon the permanent preservation of our forests; but private ownership and management in the past has led to destruction, not preservation.

The United States awoke very slowly to these truths. Prussia abandoned the policy of disposing of forest lands in 1831. France and Austria began to increase their forest holdings about 1870. But it was not until 1876, in the United States, that an awakened interest showed itself in a congressional appropriation of two thousand dollars for the purpose of employing "a competent man to investigate timber conditions in the United States." In 1881 a Division of Forestry was created in the Department of Agriculture which expanded into the Bureau of Forestry in 1901, and into the Forest Service in 1905. In 1891 a forward step was taken by the passage of an act authorizing the President to establish forest reserves; and in the same year the first forest reserve was established. In November, 1907, the area of the national forest reserves had increased to 159,439,979 acres; the forest service had developed to a point where it was able to care for the management of this vast national industry, and to coöperate further with private owners in establishing the principles of scientific forestry, while the policy of alienation has been modified to an extent amounting almost to reversal. Instead of selling forests, *the government is now permitting timber to be cut in a way to preserve the forests.* The revenue from this source at the present time is nearly $2,000,000, but that is a secondary consideration. The important point is that the government has demonstrated its ability to manage the forests along lines at once scientific and commercial. In many European countries, however, a greater revenue is secured from the forests. In France, for example, the public forests cover nearly 18 per cent of the entire land surface of the country, and yield approximately, it is reported, $2.50 per acre annually, — giving a revenue of about $59,000,000 a year. "The Prussian budget for 1903 estimated the gross receipts from forests at 106,854,000 marks, and the net receipts at 60,000,000 marks." In the United States at present 25 per cent of what is received, according to law, goes to the states and territories in which the reserves are situated for public roads and schools. It is estimated that in a few years the reserves will yield not less than $5,000,000 a year.

Experience has shown that the public ownership and management of forests is far more efficient than private ownership and management, owing to the length of time required to realize upon investments in this industry, although this argument is weakened in the case of corporations, its routine character, the large area that one man can supervise, and, perhaps most important of all, the government in its management takes into account the interests of the community as a whole. The property tax, as now levied, is one of the greatest enemies of rational forestry by private owners. The State with one hand spends millions of dollars to preserve the forests, and with the other hand administers a tax system that puts an irresistible premium upon their destruction.

Mineral Lands. — Our experience with timber lands is important as showing that private ownership of some kinds of land has not resulted in the greatest or wisest use of that land. Our national experience with mineral lands demonstrates that the policy of disposing of public lands in small holdings, free of cost or at prices far below their real value, has not led to a widespread participation in the use and profit of those lands. The reason for this, broadly speaking, is that our policy of alienation in small holdings conflicts with the requirements and necessities of modern industry. In disposing of our lands we have constantly tried to balk the corporation and the speculator in order to subsidize the settler and home builder. For instance, we have made the recipients of homesteads and mineral claims swear that they are not acting as agents "*for any person, corporation, or syndicate*," or "in collusion with any person, corporation, or syndicate, to give them the benefit of the land entered," and that the land is not being secured "for the purpose of speculation." Yet for purposes of grazing and in less degree for mining and lumbering, modern industrial methods require that large tracts of land shall be worked together, and that individual claims shall be consolidated. The core of the difficulty has been well described by President Roosevelt in these words: "It is a scandal to maintain laws which sound well but which make fraud the key without which great natural resources must remain closed. The law should give individuals and corporations, under proper government regulation and control, the right to work bodies of coal lands large enough for profitable development." And the President thereafter recommends that laws shall be passed which shall authorize the leasing, instead of the complete alienation, of coal, oil, and gas rights, as well as grazing rights on the public domain. Bills are now pending in Congress which look to the leasing of mineral lands rather than their sale, and there is little doubt that the policy of complete alienation will be sooner or later followed by a royalty or rental system.

Already the royalty system has been adopted by some of the commonwealth governments, and year by year the policy of complete alienation is more and more restricted. In a few years, in some of the Western states, these leases will probably provide enormous revenues. The state of Minnesota, for instance, in which the royalty system has been inaugurated, received $163,833 from royalties, and $31,985 from prospecting permits and fifty-year leases in the fiscal year ending July 31, 1907. The auditor of the state, in speaking of the Vermilion and Messabe iron ranges, says that on contracts now in existence perhaps one hundred million dollars will be realized for the school and university funds.[1]

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[1] Auditor's Report for 1905–1906, p. liv. Data given in the Preliminary Report of the Minnesota Tax Commission for 1907, Chap. V, however, seem to indicate that $50,000,000 would be a safer estimate.

The Success of our Land Policy. — In a rough, general way, our land policy has been a success, as is shown by the unprecedented and almost feverish development of the country in the last century, with the creation of a fund of taxable values which makes it an easy matter for the state governments to raise all the revenue which they need. But in some respects it has signally failed. In the first place it has not paid: more money has been spent for the purchase, survey, and care of the public lands than has been received from their sale and lease. In the second place, certain kinds of lands, as we have shown, should not have been alienated. And in the third place, our efforts to give land to the landless have bred an immense amount of corruption, fostered speculation, endowed private monopoly with public wealth, and pauperized whole communities. One has only to recall the recent convictions of public officers for land frauds, and to read the report of the Commission on Public Lands, — to which specific reference is given at the end of the chapter, — to appreciate the truth of all these charges. The desert land law and the commutation clause of the Homestead Act, they tell us, operate far too often "to bring about land monopoly rather than to multiply small holdings by actual settlers." . . . "In many localities, and perhaps in general, a larger proportion of the public land is passing into the hands of speculators and corporations than into those of actual settlers who are making homes." . . . "Nearly everywhere the large landowner has succeeded in monopolizing the best tracts, whether of timber or of agricultural land." . . . "Your commission has had inquiries made as to how a number of estates, selected haphazard, have been acquired. Almost without exception, collusion or evasion of the letter and spirit of the land laws was involved." . . . "The fundamental fact that characterizes the present situation is this: that the number of patents issued is increasing out of all proportion to the number of new homes."

Possibly the most important lesson to be derived from the history of our landed domain is the vital truth that the government cannot give away valuable lands or sell them at prices far below their real value without subsidizing the speculator, endowing monopoly, and pauperizing the people. The poorer classes derive no real benefit from this indiscriminate public charity. As Secretary of the Interior Hitchcock said in 1905, in discussing the Timber and Stone Act:[1] "Many transfers of land patented under this law are made immediately upon completion of title to individuals and companies. In this way a monopoly of the timber supplies of the public-land states is being created by systematic collusion. . . . It has been urged in behalf of this act that it enables poor men to enjoy the bounty of the government by obtaining tracts of land which they can afterwards sell with advantage. A careful study seems to show, on the contrary, that the original entrymen rarely realize more than ordinary wages for the time spent in making the entry and completing the transfer. The corporations which ultimately secure title usually absorb by far the greater part of the profit." When Uncle Sam was rich enough — or was supposed to be rich enough — to provide us all with a farm, the policy of giving away the public domain appeared to be in harmony with the principle of equality of opportunity. But when the supply is far below the demand, those who receive gifts by lot or similar methods are in receipt of special privileges. What once seemed fair has, in the course of economic evolution, become unfair and demoralizing.

Our conclusion may be formulated in the following general rule: only those lands should be wholly alienated whose use and development under private ownership lead neither to monopoly nor to exhaustion and waste. Or, in more concrete terms, — remembering that the maxim applies only to those lands left to the government, and to the majority of cases, not to every specific case, — the rule for agricultural lands should be private ownership and management, for forest lands State ownership and management, for mining and grazing lands State ownership and private management under a lease or royalty system, by which the State shall secure a share of the profits and retain a large amount of regulation and control. In disposing of its lands the government should endeavor to charge value received, as gifts of valuable land, or sale at inelastic tariffs of prices which place an extreme valuation upon some tracts and an utterly inadequate valuation upon others, lead to speculation and monopoly, having most of the demoralizing features of a public lottery in which the prizes are distributed partly by chance and partly in accordance with the cunning, chicanery, and unscrupulousness of the participators. Under existing conditions the poorer classes of society get almost none of the valuable lands. Charge value received, and the people, the masses, get their share in the revenues flowing to the public treasury, in reduced taxes, and more generous expenditures for educational, protective, and developmental purposes.

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[1] Report of the Secretary of the Interior, 1905, p. 331.

Land Nationalization and Municipalization. — In recent years both state and national legislation has shown a decided trend toward the adoption of methods which will yield both greater revenue and greater control of those varied forms of national wealth which we collectively designate "land." The object of this legislation is to prevent monopoly and give to society a share in the land values created by social growth. One of the most ingenious plans for securing this end ever proposed is the single-tax scheme defended with great eloquence and earnestness by the late Henry George. His scheme, usually called "the single tax," is stated thus in his own words, printed in his organ, *The Standard:*

> "*The Standard* advocates the abolition of all taxes upon industry and the products of industry, and the taking, by taxation upon land values, irrespective of improvements, of the annual rental value of all those various forms of natural opportunities embraced under the general term 'land.'
>
> "We hold that to tax labor or its products is to discourage industry. We hold that to tax land values to their full amount will render it impossible for any man to exact from others a price for the privilege of using those bounties of nature in which all living men have an equal right of use; that it will compel every individual controlling natural opportunities to utilize them by employment of labor or abandon them to others; that it will thus provide opportunities of work for all men and secure to each the full reward of his labor; and that as a result involuntary poverty will be abolished, and the greed, intemperance, and vice that spring from poverty and the dread of poverty will be swept away."

Mr. George's proposition rests upon an extreme application of the doctrines of individualism and natural rights. Man, he holds, has an inalienable and equal right to live, and consequently an inalienable and equal right to those natural agents which we call land, and without which human life cannot exist. This right which attaches to the individual cannot be abrogated by law or custom, nor can it be alienated by one generation or set of law givers. Moreover, it is an equal right. A, B, and C each have a right to the soil, but A has no right to better soil than B or C ; in consequence of which that part of land values which arises from the differential qualities of land belongs to society as a whole, and not to particular individuals. But the differential value of land expresses itself in the economic rent which it yields, and consequently, if society seizes this rent by taxation, it will satisfy the demands of the doctrine of natural rights, while leaving the actual management and exploitation of land in the hands of individual occupiers, thus avoiding the perils of direct public management.

Man also has an unalienable right, Mr. George held, to the fruits of his own labor. As the outcome of this right, Mr. George concluded that ordinary taxation upon property other than land, upon the product of labor as distinguished from land, the gift of God, is robbery. In his view it is as immoral to levy an ordinary tax as it is criminal to fail to tax that surplus which attaches to the better classes of lands, and which we call economic rent.

The policy embodied in Mr. George's scheme differs fundamentally from the policy which we have seen creeping into recent legislation. The latter purposes to reserve only a part of the value given to some forms of land by social development. Mr. George proposes to confiscate all of "the unearned increment." Most important of all, the former proposition applies only to the future unearned increment, and purposes only to take a part, and that only after fair notice is given. Mr. George proposes to take all the unearned increment, past and present, and that whether the present owners have been encouraged to believe that they might be permitted to appropriate the whole unearned increment or not. Herein lies the essential injustice of Mr. George's scheme. As a nation we have induced immigrants and settlers to take up lands, clear them, and develop them with their labor and toil, with the promise that the values thus created by themselves and their neighbors should belong to them. Their risks and their sacrifices have been great. Even if we assume that the State made a mistake in pursuing this policy, the results of the mistake must be cheerfully borne by the party at fault, the State itself.

Mr. George not only proposes to confiscate all economic rent without compensation, and to abolish all other forms of taxation, but the assertion is made in explanation and justification of the policy that it will abolish poverty. Such a policy might, indeed, prevent landowners, who do not care to use their land, from keeping it out of the hands of those who would use it; but how it would effect all the other predicted blessings is difficult for most people to comprehend. In the first place, it is difficult to imagine how pure economic rent of *agricultural* land can be separated in practice from the annual value of the separable improvements on the land. But apart from this difficulty, the appropriation of economic rent by the public without compensation to the owners will probably never appeal to the conscience of the American public as a just thing to do. No abstract reasoning, based on "natural rights," will persuade a modern nation to so radical a step. This honestly and earnestly advocated policy is only one more illustration of the danger of basing social reasoning on any theory of "natural rights."

In cities it is easier to separate the pure economic rent from the earnings of improvements, such as buildings. Moreover, it is in cities that the principal evils attendant on private landholding are discoverable. Therefore the objections to land *nationalization* do not in the same degree apply to land *municipalization*. Many who will reject the one will favor the other. Even here, however, it is well to proceed very cautiously. Confiscation, at any rate, should not be tolerated. If great and expensive changes along this line should approve themselves to the people, the burden of the changes should be widely diffused throughout the community by means of inheritance and other taxes.[1]

Public Industries. — In the beginning, let us briefly pass in review the principal classes of industrial enterprise in which the modern State engages for the satisfaction of other than State wants; because, obviously, we are not concerned with enterprises like the government printing office, the government navy yards, 5/20 and in general, those incidental industries whose products the government consumes but does not regularly sell.

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[1] See pp. 364 and 365 for further discussion of the single tax.

I. First, we find States like Switzerland monopolizing the manufacture of alcohol and certain alcoholic beverages, Japan monopolizing the opium traffic in Formosa, or commonwealths like South Carolina engaging in the retail distribution of intoxicating beverages.[1] The purpose of the State in engaging in such industries is primarily sumptuary; it is desired to regulate the traffic almost to the point of suppression, perhaps. Ordinarily a good revenue would be secured, but revenue is a very secondary consideration. Prices will be placed above the level of highest net profit, and not improbably the ideal of regulating consumption will be so vigorously pursued that profits will disappear altogether.

II. Secondly, we have the group of so-called "fiscal monopolies." France, for instance, monopolizes the manufacture of matches, cigarettes, and tobacco in general; Japan[2] has recently gone farther than any other country in the creation of fiscal monopolies; while Prussia, Austria, Italy, Spain, and other European countries maintain public lotteries — as did many of the American colonies during the eighteenth century. The primary object of the State in undertaking these enterprises is public revenue, gain; and naturally a monopoly price is charged, the price which will yield the greatest net revenue.

III. Next, we have a group of enterprises consisting principally of the so-called "natural monopolies," which the State undertakes not for suppression, not for profit, but primarily for regulation — to regulate the quality of the product, as in the case of water; to maintain effectively what have been called "equitable conditions for the prosecution of private business," as in the case of railways; to prevent monopolistic extortion and corporate abuse, as in the case of lighting companies, the post office, the telegraph, and the telephone; or to prevent crime and preserve intact the foundations of commercial prosperity, as in the monopoly of coinage. The charges here are ordinarily adjusted to either the "revenue" or the

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[1] Since writing the above, South Carolina has abandoned the dispensary system.

[2] *Cf.* recent magazine articles.

"cost" principle, that is to say, the State will either aim to make a fair business profit such as is secured in competitive private enterprises, or it will endeavor approximately to meet expenses by adjusting its charges to the cost of production. England, France, and Germany, in ordinary years, obtain handsome revenues from their respective postal departments, but in the United States the accounts of the Post Office Department show a regular annual deficit ($6,653,282 in the fiscal year 1906–1907), and taking the world over, the cost principle in this group of industries is probably more common than the revenue principle, and deficits more common than net profits. In the United States the post office has always been regarded as a developmental agency rather than a business enterprise, and might more logically, perhaps, be included in the next category.

IV. Finally, we have a large and heterogeneous group of industries which are maintained principally for service, for their educational and developmental influence, not primarily for regulation, and not at all for profit, but "for the public good." We include here not only schools and educational institutions of all kinds, but roads and canals; the savings banks and public pawn shops maintained in several countries of continental Europe; workingmen's insurance as developed by Germany, Austria, and several of the Australian colonies; and the model manufacturing establishments such as France maintains for the production of tapestries and fine porcelains. In this group charges will sink to a minimum, and in some lines of enterprise, such as education, practically disappear. Revenue here is not only a minor, but is almost a negligible, consideration.

A brief consideration of the incomplete list of State industries given above brings out several important truths. In the first place, it is evident that only a few of these industries, the fiscal monopolies, have been taken over by the State for the purpose of revenue, and fiscal monopolies are decreasing rather than increasing in relative importance. In the second place, it is equally as clear that, on the whole, public industries are sources of expense and not of profit. When Professor Bastable, for example, tells us that in England, in the fiscal year 1893–1894, only 6 per cent of the national revenue came from public industries and other non-tax sources, that in the local revenues of England and Wales (1891-1892) taxation stood to other sources of revenue in the ratio of five to one, that in Prussia about 20 per cent of the national revenue comes from the domain and industrial enterprises, and in India something less than 50 per cent from "quasi-private sources of revenue," he is careful to warn us that the statistics take no cognizance of interest payments chargeable to the several industries, or of depreciation, or of related industries in which deficits and not profits were secured. When estimating the importance of railway earnings in the revenue account, no cognizance is ordinarily taken of the canal deficit. In the third place, we perceive from the nature of the industries that they cannot wisely be operated for profit in many cases. Education, for instance, has been taken over by the State for the very purpose of charging less than the cost of the service. The unquestionable tendency is for the prices of goods and services supplied by a democratic State to sink below the cost of production, and this, in itself, is neither good nor bad, fortunate nor unfortunate. The public financier, in adjusting the charges, must not look to profit. His only aim is the *salus populi*, and this policy requires here a prohibitive price, there a cost price, and again free service. Finally, it appears, the problem of public charges can be settled only with reference to a particular time, place, and industry. England finds it expedient to raise a handsome revenue from her post office, while the United States manages our post office at a loss. Waterworks are successfully conducted by most of the large American municipalities, but public lighting experiments in this country have not been equally successful. India raises half of her revenues from non-tax sources largely because heavy taxation of the ordinary kind would be impossible. The French tobacco monopoly succeeds because the French government can supervise and trace almost every pound of tobacco grown in France. In the United States this would be impossible.

Although we cannot decide in a general way what theory of charges should be followed in particular public industries, it is possible to lay down general rules which will assist in reaching a correct conclusion in specific cases. Assuming that the industry in question supplies a service rather than a commodity, merely to save words in the discussion, we must first of all inquire: (*a*) Is the service helpful or harmful in its net social effect? According as it is one or the other, we will incline in our charges toward the gratuity principle or the prohibitive principle. If harmful, however, it is plain that we must not make the charges high enough to encourage smuggling or illicit manufacture. If helpful, on the other hand, we cannot at once decide upon the gratuity principle, but must inquire farther, (*b*) How, generally, is the service enjoyed? If only a small portion of the community enjoys the service, it would usually be unjust to charge less than cost, because the deficit would be borne by general taxation falling upon the entire community, unless, indeed, the benefit to one restricted class is seen to be of advantage to the whole community, in such a degree that the rest of the community is willing to bear the deficit, as in the case of public charity.

(*c*) Assuming that the service benefits the whole community, this is still not sufficient to justify a charge less than the cost of production. The problem is one of comparative costs. We must inquire whether greater benefit would not be secured by charging enough to raise a profit and then distributing that profit through the maintenance of some other gratuitous enterprise, or, if the tax system weighs heavily on the poor, by remitting taxation to the extent of the profit. (*d*) If all these questions are answered in favor of the gratuity principle, we still must consider, What effect will gratuitous service have upon the cost of the service? Will it encourage wastefulness? Free city water, for example, would probably prove impracticable because of waste, but free parks or free education do not lead to inordinate or unnecessary consumption. The question is a vital one, but it is not always to be answered one way, as some critics of government ownership seem to believe. (*e*) Closely related to the above, is the question of pauperization. Some things the State may safely give away, and some not. The modern city, for example, may give band concerts free, in our view, to the undoubted edification of the community; but in Rome the public games demoralized the populace. (*f*) Finally, we have to ask, What effect will gratuitous service have on incomes? Henry George proposed that our cities should operate the street car lines gratuitously, and the argument in its favor is far stronger than might be expected on first thought. But what effect would this gratuitous service have upon the incomes of the laboring classes? Take the case of the worker in New York City earning $3.00 a day. Will his wages remain at $3.00, if street car service is offered free of charge? Will not the migration to New York be increased, so that wages will fall? And may not the gain ultimately fall to owners of house property in the form of enhanced rents?

All these questions must be answered before the tariff of charges can be adopted, and it is plain that the answers will be determined by the particular conditions of time, industry, and place, particularly by the character of the industry. The nearest approach to a general rule which can be formulated, may be stated as follows: *In proportion as a service or commodity tends to the upbuilding of character and personality, we should, so far as fiscal conditions permit, gradually move in the direction of the principle of gratuitous service. If the service or commodity itself is widely consumed and is as desirable as anything among vendible commodities, particularly if large consumption is desirable and waste in consumption does not become excessive, the principle of gratuitous service may be recommended.*

Limitations of space prevent further treatment of the subject of public industries. The important thing to understand is that the moment an industry is taken over by the government, that moment the question of profit — which is the vital consideration under private management — becomes of secondary importance, subordinate to questions of public policy; and the interjection of public policy into the determination of prices or charges, creates a problem whose complexity and difficulty can scarcely be exaggerated. At the present time, for instance, we do not even know whether our second class postal rates pay for the cost of carriage and delivery of second class matter, to say nothing of the question whether such matter ought to be carried at less than cost. Just now the indications are that the State will take over an increasing number of industries, or at least exert a constantly increasing influence upon the rates and charges of quasi-public industries. Under these circumstances our present duty is to institute, both in public and quasi-public industries, a thoroughgoing system of cost accounting, so that we shall understand upon what footing each branch of the industry rests. Our second duty, which falls primarily upon economists and statesmen, is to develop a far more satisfactory theory of public charges, for at the present time we hardly understand the many factors that must be considered in this problem, much less the net meaning or resultant of these factors.

QUESTIONS

1. What proportion of the public receipts comes from the public domains? What gives importance to the question of revenue from government ownership?

2. Are public debts a burden when represented by paying investments? by non-revenue-bearing investments?

3. Do State debts indicate impoverishment of the people? Why?

4. What expenditures should be met by taxation? by loans? What is the natural limit of each?

5. How was the State supported in primitive times? What connection is there between taxation and representative government?

6. What has been the principal aim of the United States in the management of public lands? How has this aim changed?

7. Why do the poorer classes benefit least by the homestead acts and by the sale of the public lands at prices below their real value?

8. Have as many acres of land been given to individuals by the homestead and similar acts as to the railways?

9. What kinds of land should be both owned and managed by government? Why?

10. What are the advantages and disadvantages of the royalty or lease system? To what kinds of land should it be applied?

11. What conflict is there between modern industrial methods and the project of giving land to the landless?

12. What connection is there between "natural right" and the single-tax scheme?

13. Is there any absolute, inalienable right to life? to anything?

14. Should State industries be managed so as to yield a profit? Is a profit inconsistent with good State management? Is any general tendency, with respect to profits, discernible in the management of particular public industries?

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CHAPTER XXXIV

PUBLIC REVENUES: DERIVATIVE REVENUES, FEES, SPECIAL ASSESSMENTS, AND TAXES

Definitions. — If the reader will run over the classification of public industries given in the preceding chapter (page 598), he will notice that the corresponding payments — which descend, it will be remembered, from prohibitive to gratuity charges — fall into two main classes: those imposed upon the consumer or purchaser who specially benefits by the service, and those — like the revenues devoted to the maintenance of education and public parks — imposed upon the tax-paying public generally, irrespective of the benefits conferred by the service. Moreover, as we move from the prohibitive to the gratuity group, there is a general though not regular change in the degree and kind of compulsion exercised by the State in collecting the contribution. The State does not encourage the purchase of intoxicating liquors under the Gothenburg system in order that the revenue may be as large as possible; it actually discourages their sale: the use of the postal money order is mildly encouraged, but you may send your money by express if you desire; one is not forced to marry, but if one marries one is compelled to take out a marriage license; and whether one uses the public schools or not, one must help pay for their maintenance. Finally, it will be noticed that as the element of compulsion increases, the public interest in the service changes, and generally though not always increases. The wood sold from the government forests is merely a commercial by-product of an enterprise maintained by the government for other purposes; the marriage license fee benefits the individual, but is imposed primarily to protect the morals of the community; while the tax to maintain the public schools is paid solely for the purpose of benefiting the general public.

There are, then, three general principles of classification: (*a*)
the assignability of the benefit of the service to an individual;
(*b*) the degree of compulsion exercised by the State; (*c*) the
degree and kind of public interest involved in the service. The
more voluntary payments for the more commercial services made
by persons who receive a special benefit from these services, are
1. called *public prices;* the less voluntary payments for services in
which the public interest is less commercial in character, made
by persons who receive a special benefit from the services, are
2. called *fees*. Compulsory contributions, "levied in proportion
to the special benefits derived, to defray the cost of a
specific improvement to property, undertaken in the public interest,"
are, in the United States, called *special assessments;*
3. and compulsory contributions, exacted by public authority according
to some general rule, without reference to the special
benefit conferred by the services to whose maintenance the contributions
4. are devoted, are called *taxes*.

The student is warned that little regard is paid to these distinctions in everyday usage. The words "fees," "taxes," "licenses," "tariffs," "rates," "charges," and the like are hopelessly confused; and even the trained economist finds it impossible to distinguish with complete success between prices, fees, and some kinds of taxes. The utility of the terms is in emphasizing the important truth that these great categories of public contributions must be distinguished and differently treated by the legislator and student, by whatever terms the different categories are designated.

Fees.[1] — In the exercise of its most fundamental and general functions, the government frequently confers, in an incidental way, special benefits upon particular individuals. Thus the courts, whose function it is to administer justice in general, find that this function must be performed by deciding disputes between particular litigants, one of whom usually benefits by the decision. Now if the government is disposed to take advantage of the opportunity, it is evident that much revenue may be raised from the individuals who, in a more or less adventitious way, benefit from the government activities; and where the nation is poor or the people averse to taxation, much dependence will be placed upon fees. As wealth increases, however, and the government becomes more democratic, there is a growing disposition to support general functions by general contributions — taxes — and the relative importance of fees is likely to decline. On the other hand, there is no likelihood that fees will wholly disappear, as they exercise a wholesome influence in preventing waste. Court fees, for instance, would probably have been abolished before this, if they did not serve to prevent litigous persons from carrying their quarrels to the courts for settlements. Because of this restrictive and economical influence exercised by fees, they will undoubtedly retain a permanent place in the public revenues of even the more advanced and democratic states; but their fiscal importance will probably decline.

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[1] Public prices have been discussed in the preceding chapter. The small tuition charges paid by students in state universities offer a good illustration of fees; they are non-commercial in character, semi-voluntary, and in amount fall considerably short of the cost of the service.

During the colonial epoch, the fee system was much abused in America, many offices being wholly maintained by fees, which should have been abolished or supported by taxation. At the present time, however, the evils of the system arise not from the number or amount of fees, but from their connection with the salaries of certain public officials. Many officials are allowed to keep the fees which they collect in lieu of fixed salaries, and this practice results in very serious evils. In the first place, some fee-paid offices, particularly those of sheriff and register of deeds in populous districts, have come to yield princely incomes, and the scramble for these rich offices constitutes a prolific source of political corruption. In the second place, fee payment of public officials often impels them to an excessive and pernicious activity, in which their own interests and those of the commonwealth are placed in direct conflict. In a few states, for instance, prosecuting attorneys are paid so much per conviction, the fee increasing with the heinousness of the offense, while in many cities and villages the police force and city courts are supported partially by fees and fines. Under these circumstances, officials bend their activity to the conviction of offenders, not to the prevention of crime and the reform of the criminal; they frequently set traps for persons who are likely to break the law, creating the temptation and the opportunity in order that they may increase their emoluments. In Wisconsin, sheriffs were for many years paid so much per head for the tramps whom they fed and lodged. The system, as has been said, placed a "direct premium upon vagrancy."[1] During the existence of this system in Wisconsin, tramps were "often furnished with liquor, tobacco, and newspapers, to induce them to return." Finally, the fee system has been a constant and shameful corrupter of justice as dispensed by justices of the peace in "the people's courts." In most states there are several justice's courts open to the plaintiff who desires to bring suit. In consequence, a disgraceful competition springs up, each justice endeavoring to swell his business and multiply his fees by constantly finding for the plaintiff, with the result that our judicial system is thoroughly vicious at the point where perhaps it comes in closest contact with the masses of the people.

The remedy is in the substitution, wherever possible, of regular salaries for fee stipends, and in the institution of methods of accounting which will hold public officials to strict accountability for every fee collected. Fortunately, the movement of legislation, while slow and obstinately fought by the politicians, is in the right direction; and in almost every state public officials are being required to turn their fees into the general treasury and accept instead a fixed compensation.

Special Assessments. — Where the operations of the government confer a special benefit upon some restricted group of individuals, those individuals are often led to exercise undue influence upon the government to secure that service, if the latter is supported by appropriations from the general funds. Jobbery and graft are encouraged. On the other hand, if the only way the group of individuals can secure the service is by expenditure of the common funds, the government or legislature often delays the expenditure unduly for fear of criticism or because of unwise parsimony. Thus in cities where the method of special assessment is not used, it often happens that the opening of a street is delayed long after the time when it would be desirable for the citizens most interested, although perhaps the latter would be willing to defray the cost from their own pockets, were this permitted.

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[1] T. K. Urdahl, *The Fee System in the United States*, p. 211, *et passim*, from which the other quotations cited in this section are taken.

A recognition of these facts in recent years has led to a striking development in the United States, of the benefit principle as exemplified in the method of special assessments. The special assessment has been used sporadically in many countries for several centuries, but it was first regularly used on a wide scale in the United States, in the latter half of the nineteenth century. Its place and importance among the regular derivative revenues is shown in Table I, page 611, from which it appears that special assessments aggregating nearly $40,000,000 were collected in 1902. This amount constituted less than 3 per cent of all the derivative revenues; but as the national government collects no special assessments and Massachusetts is practically the only state which makes use of the special assessment in state finances, the real importance of the special assessment appears more clearly from an examination of its place among municipal revenues. Among cities of more than 8000 inhabitants in 1903 special assessments constituted nearly 8 per cent of the derivative revenues and yielded almost one tenth as much revenue as all kinds of taxation.

The special assessment has been approved by the American courts because it places at least a part of the cost of the service upon the beneficiaries of the service, a rule which can sometimes, but not often, be violated without subjecting the government to excessive and corrupting private influence. The special assessment has appealed to the people, however, because it permits public improvements to go ahead at a pace which would be impossible if taxation were the only fund for defraying the cost of the improvements. Needless to say, the special assessment has occasionally stimulated extravagance and premature development. Thus, in New Jersey, in the last quarter of the nineteenth century, several large cities were practically thrown into bankruptcy by undertaking ambitious public works, in which the special assessment played an important part. And in New York, under the Tweed régime, the system of special assessments furnished an excuse for undertaking public works in which corruption flourished, and which probably would never have been undertaken, had it been known in the beginning that their cost would have to be partially defrayed by taxation. "The works had been carried on upon a scale of audacious extravagance, and in portions of the city where they were not at the time justified. Great avenues were laid out and improved largely for the purpose of giving fat jobs to favorite contractors, and to provide fine drives for the pleasure and convenience of others than the abutting property owners."[1]

On the whole, however, the special assessment has been an unusual success as a fiscal expedient, and has proved an important, if not an indispensable, factor in the development of American cities. Where its use has been followed by extravagance, speculation, or jobbery, these evils are to be attributed almost wholly to political corruption of the government, and only in a very small measure to the special assessment itself. Most of the evils, moreover, have arisen where the city government, or some department of the city government like that of public works, has been given the power to order the improvements against the will of the property owners involved; or where — as was the case in the example cited above — assessments upon particular lots were permitted to exceed the value of the property. Special assessments should not be levied against the will of a majority of the property holders subject to assessment, except by a two thirds or three fourths vote of the city council, and in no case should the assessment exceed a small fraction of the value of the property against which the assessment is laid. Where these rules are observed, the special assessment is unlikely to lead either to premature development or hardship upon the property holder.

Taxes.—More than 70 per cent of all the public revenues, and nearly 95 per cent of the regular derivative revenues, are obtained from taxes, so the problems of taxation are the most important with which the public financier has to deal. These

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[1] Rosewater, *Special Assessments: a Study in Municipal Finance.*

TABLE I

FEES, SPECIAL ASSESSMENTS AND TAXES RECEIVED BY THE NATIONAL GOVERNMENT, STATES AND TERRITORIES, CITIES, AND OTHER CIVIL DIVISIONS : 1902

	NATIONAL GOVERNMENT	STATES AND TERRITORIES	COUNTIES	CITIES OF OVER 25,000 INHABITANTS	CITIES OF FROM 8000 TO 25,000 INHABITANTS	OTHER CIVIL DIVISIONS	AGGREGATE	
							AMOUNT	PER CENT
Fees	$4,587,998	$6,284,957	$16,887,208[1]	$8,413,467	$1,844,207	$2,761,265	$40,779,102	2.79
Special assessments	....	3,736,831	....	26,089,658	5,072,213	4,129,150	39,027,852	2.67
Taxes	519,457,681	155,232,508	159,844,296	310,846,188	53,420,988	181,307,995	1,380,109,656	94.54
Customs	285,357,837	....	....	....	....	....	285,357,837	19.55
Internal revenue	230,810,124	....	....	....	....	....	230,810,124	15.81
General property	....	82,320,134	143,265,385	269,970,975	45,690,840	165,412,910	706,660,244	48.42
Special property and business	....	52,118,752	207,244	7,256,169	1,541,135	1,204,100	62,327,400	4.27
Poll	....	2,232,309	7,383,981	966,388	570,133	5,428,975	16,581,786	1.13
Liquor licenses	....	9,749,583	6,915,928	26,837,139	4,448,047	7,290,500	55,241,197	3.78
Other licenses and permits	....	8,811,730	2,071,758	5,815,517	1,170,833	1,971,510	19,841,348	1.36
Miscellaneous	3,289,720	....	....	....	....	....	3,289,720	.22
Total fees, special assessments, and taxes	524,045,679	165,254,296	176,731,504	345,349,313	60,337,408	188,198,410	1,459,916,610	100.00

[1] Contains public prices, charges, and all "commercial revenue receipts" except interest.

problems are of two varieties; those dealing with the nature of taxation in general, and those dealing with specific taxes. The remainder of this chapter will be devoted to the general questions. Chapter XXXV will be given over to the more specific problems of American taxation.

Justice in Taxation. — By far the most important lesson which the student of fiscal questions has to learn is the supreme necessity for tolerance and breadth of view. The factors which condition justice or make for equity in taxation are exceedingly numerous; and the mistake most commonly made by superficial thinkers is to seize upon some one element of justice, build a philosophy upon that alone, and vigorously condemn everything that does not harmonize with their petty and bigoted little system. No maxim less comprehensive than the greatest good of the greatest number, and no rule less sweeping than that of the general welfare, can serve as a safe guide for the financier.

1. Some writers go so far as wholly to deny the right of the State to take private property by taxation. These writers forget that there is no such thing as absolutely private property. As the State determines what shall be private property, so also it determines the conditions of its existence, and the most fundamental condition of private property is the obligation to contribute to the support of the State. The rights of private individuals have always been of a more or less limited nature, and among the rights reserved by the people in their organic capacity will be found, in every civilized state, the right to take a portion of the wealth produced for such purposes as the law-making power may deem fit.

2. However, the State must exercise this power over private property in an equitable manner, or as this maxim is ordinarily expressed in the terminology of constitutional law, *taxation must be equal and uniform.* Thus, for example, Section 1, Article 10 of the Constitution of West Virginia provides that: "taxation shall be equal and uniform throughout this state, and all property, real and personal, shall be taxed in proportion to its value, to be ascertained as directed by law." Now, if we examine the way in which these requirements of equality and uniformity have

been interpreted in the administration of practical justice —
and it is the kind of justice that will stand the wear and tear of
practical application with which we are concerned — we find
that equality and uniformity have come to mean little more than
this, that taxation shall not be arbitrary, capricious, or plainly
unreasonable and that within each class of persons or object the
burden shall be equal. (*a*) Everywhere the legislature is given 1
a wide latitude in exempting property, so that institutions and
industries which are regarded as of peculiar value to the people
may be encouraged by freedom from taxation. Almost everywhere,
poll taxes which impose an unequal burden upon the
poor, liquor licenses which impose unequal obligations upon the
saloon, inheritance and corporation taxes which single out particular
classes of society for unusual taxation, are sustained by the
courts. *Justice in taxation, then, does not require rigid equality or
narrow uniformity of treatment.* (*b*) Institutions which are socially 2
harmful may be subject to peculiarly drastic and oppressive
taxation; that is to say, *justice may take into account sumptuary
considerations.* (*c*) Old taxes, which would not be used if they 3
were not already intrenched in the fiscal and social system, are
permitted to endure; *justice takes cognizance of the fact that, other
things being equal, an old tax is a good tax by very reason of its
age.* (*d*) Indirect taxes which weigh more heavily upon the poor 4
than the rich show no signs of disappearing; that is to say,
*justice gives due weight to the productivity of a tax, its cheapness
of collection, and convenience of payment, and balances these considerations
against factors which we are accustomed to regard as
more fundamentally ethical.* (*e*) Taxes may be employed to sup- 5
press state banks of issue, protect home manufactures, and in
general to accomplish political and social ends other than the
mere raising of revenue. Taxation is seldom the best agent of
social or political reform. If there is an evil which needs eradication,
the best way is to suppress it directly, if possible, rather than
discourage it a little by general taxation. *But this does not affect
the general proposition that where taxation is an efficient remedy,
or the only remedy, justice sanctions its employment.* (*f*) Finally, 6
it is plain that, however we strive, nothing better than approxi-

mate justice can ever be secured in taxation. A system that frankly recognizes this truth and makes for rough justice, by the imposition of taxes which are simple, stable, convenient, inexpensive and productive, is far better than one which attempts to secure exact justice through complex and delicate schemes of taxation which cannot be definitely or efficiently administered.

3. The theory of justice most widely accepted by American courts at the present time is expressed in the maxim that taxes should be proportioned to benefits derived. Like other rules of justice, this maxim contains elements of truth and elements of error. It is a fairly helpful guide, for instance, in dealing with public revenues other than taxes. Public prices, fees, and special assessments should, as we have seen, be proportioned to benefits, unless there is strong reason for departing from the rule. And in the apportionment of taxation among districts or governmental sections, the rule still retains, and probably always will retain, a large measure of validity. Taxation, we say, must pertain to the district taxed, meaning by this that under ordinary circumstances it is not wise to tax District A for the benefit of District B; although there are important exceptions to this rule. But in the apportionment of taxes among the individuals of a given district, the rule has little or no place. This conclusion follows, if for no other reason, from our definition of the word "taxes," which we confine to contributions levied without reference to special benefits received, either because no special benefit can be assigned, or because (as in the case of free schools) we specifically desire to lift the cost of the service from the shoulders of some of those who specially benefit by the service. Moreover, in general, it is impracticable to determine what proportion of the general benefits of government accrue to particular individuals.

4. At the present time a great majority of economists agree that taxes should be apportioned according to "faculty" or ability to pay. It must be confessed that the rule is not very satisfactory. For example, the faculty principle fails to explain such a generally satisfactory tax as the inheritance tax,[1] which is sometimes ad-

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[1] The attempt is often made to justify the inheritance tax by the ability theory, but unsuccessfully. See West, *The Inheritance Tax*, (Revised Edition), pp. 205–208.

justed to the size of the inheritance and the relationship of the heir, and sometimes to the size of the estate from which the inheritance is taken, but never to the total property, income, or general ability of the recipient. Moreover, the ability principle is not very precise. No simple measure of ability exists, and many taxes, which under a superficial examination seem to conform to the rule, such as the general property or income tax, are found upon closer examination to violate the rule in a thousand ways. Despite all these defects, however, the ability principle has elements of great strength. It satisfies our sense of justice, in the first place, when explicit reasons cannot be given for departing from a general rule; and it expresses the ideal towards which we strive in voluntary contributions to the church or other voluntary joint enterprises of a social nature. In the second place, we can frequently ascertain with certainty that the rule is being violated, when we cannot define its meaning positively, and hence it is capable of practical application in a negative way. We may therefore accept the rule in this sense, that unless other treatment is justified by the considerations cited in paragraph 2, above, or by analogous reasons, no tax which is plainly disproportional to the ability of the contributors, should be employed.

5. Accepting the ability principle as the best simple rule for general taxes as distinguished from the specific taxes noted in paragraph 2, we at once encounter the difficult question, how is ability to be measured? Different writers have recommended as the basis or measure of ability, income, outgo or consumption, and property. A little consideration will convince the reader that each of these measures is marked by minor defects. The consumption of the poor, for instance, is out of all proportion to their ability to bear the burdens of the state. Property, on the other hand, differs widely in its productiveness, and, moreover, many persons with a little property have large incomes, and therefore great ability to bear taxation. Incomes, similarly, differ in permanence and security, and equal incomes are called upon to support very unequal numbers of persons. Fortunately, it is not imperative in practice to make a decision between these measures of ability. The necessities of fiscal administration make it imperative in

actual practice to employ all three bases of taxation. Property, consumption, and income are all employed in the United States at the present time and will unquestionably continue to be employed for many generations.

Progressive Taxation. — After we adopt any concrete measure of ability, we soon realize that it is only approximately correct, because we are immediately confronted with the question: Does ability increase in direct proportion or more rapidly than our measure of ability; in other words, shall taxes be laid in direct proportion to income, property, etc., or shall the rate be increased as the amount of income or property increases? The first method is called *proportional* taxation, the second *progressive* or *graduated.* If the rate diminishes as the income or property increases, we speak of it as *regressive taxation;* and if the rate increases faster than the income or property, but toward a fixed limit which it can never exceed, it is referred to as *degressive taxation.*[1] The last kind of rating is of course a special variety of progressive taxation, and usually results from the combination of a nominally proportional rate with the exemption of a fixed sum from all incomes or assessed wealth. The American property tax is theoretically a degressive tax, though it is regressive in practical effect.

From the theoretical standpoint our real knowledge upon this subject is exceedingly unsatisfactory. On the whole, the arguments of those who approve progressive taxation are more convincing than those of its opponents, and a majority of economists at the present time agree in asserting that ability increases faster than income, property, or any common measure of ability. If we construe ability as ability to bear sacrifice (as John Stuart Mill and some other authorities do) and confine our attention solely to the consumer, there can be no doubt that progressive taxation is the means by which the least sacrifice will be visited upon the community as a whole.[2] This is a strong argument because one of the chief immediate effects of taxation is to deprive persons of the necessaries, conveniences, and luxuries of life, while the maxim of the greatest good to the greatest number — or as it works out in taxation, the least sacrifice to the least number — is one of the most widely accepted rules of social conduct. Surveying the ability theory from the positive standpoint of ability to acquire or produce property, we find the testimony almost universal, that as the fortune or income increases, the ability to earn or produce more increases at an accelerating pace. "It is the first thousand that counts," in the language of the successful man who is telling the younger generation how he succeeded.

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[1] The income tax of Hesse, Germany, begins at .6 per cent on small incomes and approaches, but never quite reaches, 5 per cent, as the incomes become very large.

[2] See Carver, "Ethical Basis of Distribution," Annals of the American Academy of Political and Social Science, Vol. VI, pp. 79–99.

Coming to the more concrete and more practical arguments, we find that the balance of opinion also inclines to the side of those who favor progressive taxation. Let us briefly recapitulate these arguments and attempt to estimate their net resultant. Those who oppose progressive taxation charge that the proposal is socialistic, that it would discourage the accumulation of wealth, that it would not be particularly productive, — meaning by this that the element of progressivity adds little to what would be produced by a proportional rate, — that it would stimulate fraud and evasion, that it would interfere with the device known as "collection at the source," and that finally the whole principle is arbitrary and capricious in the sense that there is no natural limit to the increase of the rate.

To these charges the defendants of progressive taxation present plans [1] by which collection at the source and progressive rating may be successfully combined in the same system; and reply, further, that terms are immaterial and questions cannot be settled by bandying epithets such as "socialistic," "anarchistic," and the like; that every tax discourages the accumulation of wealth; that whether the tax will be productive or not, it will relieve the poorer classes to the extent that the progressive rates do actually fall upon the rich; that persons capable of evading their obligations to the government will attempt to evade proportional taxes as well as progressive taxes; and that all taxation is more or less arbitrary, resting upon the judgment and common sense of the legislature. The exemptions made in every tax law, the size of license fees of all kinds, the rates of excise and customs duties, are all "arbitrary" and unlimited in the sense that progressive taxation is arbitrary and unlimited. Finally, the defendant of progressive taxation points out that, owing to the great prominence of indirect taxes in our revenue system and the tendency of assessors to assess large properties at a lower proportion of real value than smaller properties, American taxation to-day is in practice regressive, and some progressivity is needed, if only to balance the admitted regressivity of existing taxes.

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[1] Report from the Select [British] Committee on Income Tax, 1906 [365], pp. iii–vii.

While general considerations thus seem to warrant a most persistent effort to introduce a moderate measure of progressivity into our direct taxes, the student is warned that this should not be done in any doctrinaire or off-hand fashion. A thousand considerations of practical expediency must be taken into account in the shaping of a revenue system, and in the end we are more likely to attain the goal which the advocates of progressive taxation seek by careful exemptions from taxation, by special taxes upon corporations, monopolies, inheritances, and certain forms of income, *and by directing expenditures to the succor of the weak and the equalization of opportunity*, than by the introduction of any far-reaching single tax such as a progressive income or property tax.

No tax system, then, can be fairly judged without reference to the character of expenditures. Where the expenditures are wasteful, corrupt, and unwise, heavy taxation is a curse, although even here the rational method of reform is rather to root out the corruption and improve the administration, than to reduce taxation, although temporarily it may be wise to do the latter. But where the expenditures are on the whole wisely and beneficently used, heavy taxation is a blessing. *No country was ever yet ruined by large expenditures of money by the public and for the public.* The true theory to be observed in levying taxes was tersely expressed in the 41st section of the constitution adopted by Pennsylvania in 1776: "No public tax, custom or contribution shall be imposed upon, or paid by, the people of this state, except by a law for that purpose; and before any law be made for raising it, the purpose for which any tax is to be raised ought to appear clearly to the legislature to be of more service to the community than the money would be if not collected, which being well observed, taxes can never be burthens."

The Shifting of Taxes. — Up to this point we have been speaking as if a tax must remain where it is originally placed. This we know is not always the case. Excise taxes, for instance, are usually levied with the expectation that they will be passed or *shifted* from the business man, who first pays them, to the consumer or some other person. The conditions which control the shifting of taxes must evidently be considered — at least in a very general way — before we discuss the practical working of the American system of taxations.

The word "shifting" usually refers to the increase of price by which the original payer of the tax attempts to recoup himself. This increase of price is usually accompanied by collateral economic disturbances or dislocations — suggested by the phrase "repercussion of taxes" which is frequently employed in this connection — that are quite as important as the mere change in price. For instance, an excise tax (per unit of product) upon a monopoly may raise the price by as much or even more than the tax itself. But the monopolist nevertheless feels the burden of the tax in reduced profits. When we say that a tax is shifted, then, we do not imply that the original payer evades all the evil effects of the tax. And in any conclusive discussion of shifting, account should be taken of the incidence or benefit of governmental expenditures. A tax system which bears heavily upon the poor may be justified by expenditures which are largely employed to educate and provide opportunities for the poor.

Mobility is the chief factor which controls shifting; and this in turn is largely dependent upon the generality or scope of the tax, and upon the existence of monopoly or differential advantages. Place a tax upon a person or thing which can easily move to a jurisdiction where such taxes are not imposed, and the tax is very likely to be shifted. Local taxes upon mortgage loans offer a good example. Such taxes are very likely to raise the interest rate by as much or a little more than the tax rate, the "little more" being explained by the trouble imposed upon the lender in looking after the tax and the risk that the tax rate will be increased. On the other hand, if mortgage lenders are constrained by ignorance or custom or the existence of particularly high rates in this district to keep on supplying the old amounts of loans, the tax will not be shifted. Unless the supply can be or is reduced by the tax, shifting will not ordinarily take place.

Naturally, therefore, the particular nature of the supply is of prime importance. We may illustrate by an excise tax per unit of product upon competitive industries of various kinds. In industries subject to the law of constant expense, a fixed tax per unit of product will raise the price by just the amount of the tax, in theory. In industries subject to the law of increasing expense, however, the reduction of the supply caused by the tax somewhat reduces the expenses of production per unit exclusive of the tax, and on this account prices in such industries will increase by an amount less than the tax. In industries subject to the law of diminishing expense, on the other hand, the price will be raised by an amount equal to the tax, plus an amount equal to the increased expense of production caused by the limitation of supply.

Mobility, as has been said, is the most important factor in this connection, and it may be restricted or destroyed in a variety of ways. Monopoly limits mobility, and, as we have seen in Chapter XIII,[1] the monopolist cannot shift a fixed tax or a proportional tax on net profits unless the tax is so high as to reduce monopoly profits below the amount that could be earned on the same investment in a competitive industry. For somewhat similar, but not exactly the same reasons, differential gains from durable property are peculiarly susceptible to taxation. Thus, economists generally indorse the proposition that a tax on economic rent falls upon the landlord and cannot be shifted. The validity of this depends both upon the durability of land and the fact that the tax is levied upon a differential element. If land wore out and had to be replenished, the tax would reduce the future supply of land and hence raise its price and its rent in the future. Similarly, if the tax were levied upon the product of marginal or no-rent land, it would elevate the margin, reduce the supply of those products or services which land affords, and in this way again raise prices and partially reimburse the landlord. But, by hypothesis, neither of these suppositions are true. Land, as we define it, does not wear out; and at the margin land yields no economic rent.

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[1] pp. 200, 201.

The proposition that a tax on economic rent cannot be shifted is true, also, only of a proportional tax. A tax of so much per bushel or pound upon agricultural produce would move the margin of cultivation and thus affect prices. Indeed, the exact form of a tax — whether fixed, proportional, or progressive, upon net or gross returns, upon product or upon profit — is of fundamental importance always. Generally speaking, proportional taxes upon net income are less easily shifted than other forms of taxes.

If the object of taxation be durable and the tax a special or exclusive one, the value of the object is likely to be reduced by the capitalized value of the tax. Prospective purchasers of land, for instance, always take into account the taxes that are likely to be levied upon it, capitalize these, and subtract their capitalized value from the amount which they would pay for the property if it were not liable to taxation. The apparent result of this *capitalization or amortization of taxes*, as the process is called, is to place the burden of an endless succession of taxes upon the original owner, and relieve subsequent purchasers of any real burden.

Many present-day followers of Henry George find in this principle of amortization at once a justification and a method of securing for society all economic rent. Under present conditions, they say, a man who buys land wholly escapes taxation upon it. Consequently, in order to make landowners pay as much as other people we should have to increase the tax upon land by a rate equal to that paid by the average tax-payer as often — say every thirty years — as the land of the community changes holders. In this way the State could gradually and with justice absorb all economic rent.[1]

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[1] See the paper upon "The Single Tax" by C. B. Fillebrown in *State and Local Taxation* (the Addresses and Proceedings of the First National Conference of the National Tax Association), pp. 286–293.

But this whole chain of reasoning is fallacious for three reasons: (*a*) This capitalization takes place only to the extent that the tax on land is exclusive and unequal, and modern taxes upon land are not of this nature. (*b*) In so far as this programme of the single taxers were anticipated and understood, it would visit the whole burden of the "reform" upon present owners, instead of being distributed over several generations. Subsequent purchasers would discount these periodic increases of the tax and pay to owners for their land only the present value of the rapidly vanishing income from land. Land would be valued simply as a terminable annuity. (*c*) This whole doctrine overlooks the inevitable consequence that, if "the selling value of land is an untaxed value"[1] and if "the burden of a land tax cannot be made to survive a change of ownership,"[2] these facts would so increase the demand for land that the profits from its purchase and ownership would not exceed profits in other lines of investment. Given plenty of time, active competition, together with a knowledge of the facts of the situation, and such inequalities of taxation are inevitably smoothed out by the natural movement of capital toward the taxless field or away from the field in which burdens are particularly severe.

This inevitable reckoning of taxation among the disadvantages of industry, brings it to pass that *many old taxes are diffused over the entire community*. Such diffusion does not take place when the nature of the supply prevents it from varying in nice correspondence with the prospects of profit. A poll tax upon laborers, for instance, will in our opinion not be shifted, as it is likely to lower their standard of living, stimulate the birth rate, and in turn (other things being equal) actually reduce wages. But exclusive taxes on capital and business will be diffused; and for this reason there is a profound practical truth in the famous dictum of Canard that "every old tax is good; every new tax is bad," when sympathetically interpreted. Of course this doctrine assumes that industrial changes are infrequent. The tax system must and should vary with changes in the fortunes of business enterprise. The development of a new industry making unusual and unexpected profits offers a good opportunity of relieving an old industry that has unexpectedly fallen upon evil days. And for this reason it is highly desirable that state constitutions prescribing a rigidly uniform system of taxation should be amended so as to permit reasonable classification of property and business for purposes of taxation. All these qualifications of the diffusion theory are true and important. But the fact still remains that under ordinary conditions nothing is worse in a tax system than uncertainty, continual tinkering with rates, and capricious readjustment of methods.

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[1] See the paper upon "The Single Tax" by C. B. Fillebrown in *State and Local Taxation* (the Addresses and Proceedings of the First National Conference of the National Tax Association), p. 290.

[2] *Ibid.*, p. 290.

QUESTIONS AND EXERCISES

1. In accordance with what principles of classification do we distinguish fees, special assessments, and taxes?

2. Enumerate six distinct fees commonly employed by state governments.

3. Can a fee exceed the cost of the service to the state? Is the familiar "high liquor license" a fee or a tax?

4. What accounts for the rapid development of the special assessment in the last fifty years? Is it possible to apportion the benefits of a public improvement with any degree of accuracy?

5. Make a table from the Census Volume on *Wealth, Debt, and Taxation*, showing the relative importance in each governmental division, of the taxes differentiated in Table I.

6. Why are liquor licenses distinguished from other licenses and permits?

7. Has the state a greater right to tax land and natural agents than wealth which is, in large degree, a product of human labor?

8. May monopolies be equitably subjected to special taxation? Even if the monopoly rests upon superior efficiency, or upon patent rights justly acquired?

9. Is rigid equality of taxation a primary and fundamental desideratum? Is it possible of achievement? Is there any real distinction between the so-called ethical qualities (of equality, uniformity, etc.) and the so-called administrative qualities (convenience, elasticity, productivity, etc.) of a tax?

10. Is the benefit principle wrong or merely impossible of application? If wrong, why do we retain it in fees and special assessments?

11. Is it easier to measure ability than benefits?

12. Is progressive taxation arbitrary? Can it be satisfactorily considered apart from the effect of public expenditures?

13. Work out the effect of an excise tax on a monopoly subject to the law of increasing cost.

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CHAPTER XXXV

PUBLIC REVENUES; FEDERAL, STATE, AND LOCAL TAXES

FEDERAL TAXATION

Direct and Indirect Taxes. — The fundamental character of the American revenue system is determined by those clauses of the federal Constitution which provide that "direct taxes shall be apportioned among the several states . . . according to their respective numbers"; that "all duties, imposts, and excises shall be uniform throughout the United States"; and that "no state shall, without the consent of Congress, levy any imposts or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws."

Just what the words duties, imposts, excises, direct and indirect taxes signify, as used in the Constitution, has been a matter of considerable discussion. Ordinarily the word *duty* "means an indirect tax imposed upon the importation, exportation, or consumption of goods," being given "a broader meaning than *custom*, which is a duty imposed upon imports or exports," while "the term *impost* also signifies any tax, tribute, or duty, but it seldom applied to any but indirect taxes. An excise duty is an inland impost levied upon articles of manufacture or sale, and also upon licenses to pursue certain trades or to deal in certain commodities."

But all these definitions are made to hinge upon the meaning of *direct* and *indirect* taxes, and that meaning is exceedingly doubtful. Until 1894, it was believed by most persons that as used in the Constitution of the United States, these terms were to be given an historical interpretation, to be accepted as used in 1789, and that in this interpretation capitation and land taxes were probably the only forms of direct taxes. This belief was sustained by the fact that the Federal Supreme Court at various times sanctioned the employment by Congress of income, inheritance, and special property or consumption taxes. But in the income tax decision of 1894 the Supreme Court reversed its earlier decisions, declared the income tax to be "direct," and interpreted the words direct and indirect in accordance with the economic rather than the historical or legal use of those terms. According to most economists, *direct taxes are taxes levied by the State upon those who are expected to bear the burden of them, while indirect taxes are supposed to be shifted to other persons.* In the economic sense, poll taxes, property, income, and inheritance taxes are usually called direct, while customs taxes and excise taxes are called indirect.

It is plain that the economic meaning of these words is exceedingly vague, because it is made to turn upon the expectation of the user concerning the shifting of the tax, and upon no subject in the entire province of political economy is there more uncertainty than upon the shifting of taxes. Because of this uncertainty, economists have for years protested against the use of these terms at all in scientific analysis, although they have tried to introduce a more consistent usage, owing to their constant employment in popular discussion. Under these circumstances, it was exceedingly unfortunate that the Supreme Court turned away from the legal interpretation of the words. When the latter were placed in the Constitution, they probably had no definite or accepted meaning; they had no definite or accepted meaning as used later by economists or publicists; and the only way they could attain precision was by legal interpretation. After a number of consistent opinions which gave the words a definite connotation and promised to clear up a difficult situation once for all, the Supreme Court threw everything into chaos again by revising opinions which had stood unchanged for many years.

Use of Direct Taxes by the Federal Government. — The effect of the constitutional provisions which we have been discussing has been to concentrate federal taxation almost wholly upon consumption, since direct taxes when apportioned according to population have shown themselves to be unjust, unproductive, and exceedingly difficult of collection. Congress has made use of direct taxes only five times during the history of the national government. Two million dollars was apportioned in 1798; $3,000,000 in 1813; $6,000,000 in 1815; $3,000,000 in 1816; and $20,000,000 in 1861. Except in the tax of 1798, Congress has always permitted any state to assume its quota and raise the money as it saw fit, although provision was always made for the collection of the amount — usually by taxes on lands, houses, and slaves — by federal officers, in case the quota was not assumed by the state government. It would be difficult to exaggerate the unsatisfactory character of such taxation. In no case has the federal government ever collected the full amount of the tax. The taxes levied in 1814–1816 continued to be collected until 1839. The last payments on the direct tax of 1861 were not received until 1888; and in 1891 a law was passed abolishing further collections and authorizing the amounts which had been collected under the act of 1861 to be returned. Considerable scandal arose out of this refunding act owing to the enormous commissions paid to certain lobbyists for their work at Washington in securing the passage of the law. Experience has thus made it amply clear that the federal government must put its dependence upon customs duties, excises, and similar taxes.

Customs Duties. — Among federal revenues, customs duties easily occupy the place of first importance. From the foundation of the federal government in 1789 until the Civil War, with the exception of a few excise taxes collected between 1791 and 1802, the federal government derived nearly all its permanent regular revenues from customs taxation, and since the Civil War considerably more than 50 per cent of the permanent revenue has, on the average, been derived from this source. From the very beginning, moreover, our customs duties have been in spirit, if not in effect, protective; and it thus becomes necessary to consider the connection between the protective and revenue principles, in addition to the more strictly fiscal aspects of customs duties.

Protective duties are imposed in the hope of diminishing imports and substituting in their stead the products of home manufacturers. To the extent, therefore, that they are successful in their purpose, they reduce the customs revenues and justify the statement that there is a fundamental antagonism between the protective and revenue principles. However, the reduction of importation does not signify that the consumers of the article in question are not taxed. So long as the price remains higher than it would be if no duty were imposed, the people are taxed to the extent of the difference, the proceeds of the tax going to home manufacturers in the form of an unmeasured, unregulated bounty, whose burden upon the taxpayers is no less real because unperceived.

It is equally evident that no protection is given unless the price is raised. The popularity of customs duties is largely explained by the belief that the foreigner can be made to bear the burden of the tax. He can in some cases, but not in the majority of cases. For the most part it is believed that the burden must be borne by the home consumer. But whatever the extent to which the foreigner can be made to pay the tax, to that extent the tariff fails to replace foreign by home products; in short, fails to "protect." We cannot save our cake and eat it. The more the protection or bounty to the home manufacturers, the greater the tax upon the consumers, the less the shifting of the tax to the foreigner, and the less the revenue to the home government. The protectionist is logically deprived of the time-worn argument that the foreigner foots the bill.

The shifting of import duties may be best explained by noticing separately the immediate and ultimate incidence. (1) The immediate effect of the tax will be to discourage certain foreign producers from shipping their products to the newly restricted market, and prices will tend to rise because of diminished supply. If the product is controlled by a foreign monopoly, the price may not increase; but where the foreign production takes place under competitive conditions, and in most cases where the production is monopolized, the price will be raised. The increase of price may be more or less or exactly equal to the tax according to the readiness with which foreign producers find a new market, but in a large majority of cases the burden of the tax will be shared by the producer and consumer, the latter — according to the majority of authorities — bearing most of the burden. That the burden, however, is partially borne by the foreign producer accords not only with the best theory, but with the great interest displayed by exporters everywhere in the tariff legislation of foreign countries, and the sacrifices which protectionist governments are willing to make in reciprocity treaties for the purpose of obtaining advantageous terms for their own producers.

(2) Eventually, however, the initial increase in price may stimulate home production, and this can only take place when the increase of price is less than the duty, because if the price rises by the whole amount of the tax, the foreigner will still possess his initial advantage. If the home producer totally ousts the foreigner, then the consumer bears all the difference between the existing price and the price that would rule if no duty were imposed — although, of course, the treasury receives nothing. If the home producer secures only a part of the home market, it is plain that, under ordinary circumstances, the foreigner pays part of the tax, *i.e.* the amount per unit of product by which the duty exceeds the *increase of price;* whilst, as before, the home consumer pays, on every unit consumed, a tax equal to the difference between the old and the new prices. When, however, we attempt to go further and take account of the indirect effects of protection, the problem becomes almost hopelessly complex. Modern economists, however, are substantially agreed that the foreign producer bears a much larger share of the average customs duty than the English economists of the first half of the nineteenth century were willing to admit.

From the standpoint of revenue, American customs duties have the great virtues of high productivity, convenience of payment, and cheapness of collection. Along with these important virtues are associated almost all the vices to which indirect taxes are subject. (*a*) The most important defects of our customs taxes are their unreliability and uncertainty. Historically, they have shown a pernicious variability, expanding when increased revenue spelt extravagance, contracting when the country sorely needed larger revenue. In 1791, for instance, the customs revenue exceeded the total ordinary expenditures by over 41 per cent, while in the very next year they fell short of the expenditures by 58 per cent. Between 1791 and 1860 inclusive, the customs receipts actually exceeded the expenditures in thirty-four years; varied between 50 and 100 per cent of the expenditures in twenty-eight years; and fell below 50 per cent in eight years. In 1860, more than 84 per cent of the expenditures were secured from this source, but in 1863 less than 10 per cent, so inadequate is

Revenue
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the customs revenue in a serious war when money is most needed. In 1864, Congress made desperate attempts to increase its customs revenue. In the tariff act of that year about fifteen hundred articles were enumerated, and the average rate approximated 50 per cent; yet the receipts dropped from something over one hundred and two millions in 1864 to less than eighty-five millions in 1865, constituting only 6.5 per cent of the total expenditures in the latter year. During the history of the national government, the customs revenues have varied with the industrial condition of the country, the prospects of peace or war, the power of the tariff lobby, the prosperity and commercial policy of foreign nations, but almost never in nice accordance with the financial needs of the federal government. Where the tariff is controlled by revenue rather than protective purposes, it can be made strikingly stable and responsive to the control of the treasury. "The English revenue from this source has kept very near £20,000,000 per annum for the last thirty years. In the period 1815–1895, it has only varied between £24,000,000 and £19,000,000, notwithstanding the extensive remissions of taxation."[1]

(*b*) From the fiscal standpoint, our tariff system is far too complex and cumbersome. Whether we tax many imports or few, the major part of the revenue comes from comparatively few imports, so that by extending the list of dutiable articles we merely add to the cost of collection and increase the interference with commerce, without materially augmenting the yield of the tax. Great Britain taxes less than fifty articles, and nearly all of her revenue from import taxation comes from five articles, tobacco, tea, spirits, wine, and sugar. Compared with direct taxes the cost of collecting our import duties is not high (2.55 per cent of the receipts in 1907), yet it exceeds the cost of collecting the internal revenue duties (1.72 per cent in 1907); and in some customs districts the expenses of collecting actually exceed the tax collected. In fact, the administration of the entire system is cumbersome, inquisitorial, and irritating.

"There is no better illustration of a complex and incomprehensible revenue system than the tariff legislation of the United States. It levies import duties upon goods that make up the country's exports as well as upon those that constitute the normal imports of the nation's commerce; it taxes raw material as well as the manufactured product, and the manufactured product itself is taxed at many stages in the process of its manufacture; the rate imposed is determined in part by considerations of revenue, in part by the desire to grant 'incidental protection,' and in part for the purpose of prohibiting the import of selected articles; the rules of rating are numerous, overlapping each other in many cases and resulting in a confusion of instructions that necessitates a board of appeal in continuous session; the text of the law makes a book of one hundred and fifty pages, while the law and its interpretation used by the officials as a guide in the performance of their duty is a volume of several hundred pages. A law of this sort cannot be comprehended."[1]

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[1] Bastable, *Public Finance*, p. 517 (written in 1895).

Customs duties are either *specific* or *ad valorem. Specific duties are laid in proportion to weight or number, without regard to value,* while *ad valorem duties are levied in proportion to the value of the commodities imported.* Ad valorem duties are open to the objection that they offer a greater temptation to fraudulent valuations, and hence make more difficult the work of the customs officers. Specific duties, on the other hand, while they can be more easily administered, are open to the serious objection that they impose a relatively heavier burden upon less valuable goods of any class. Owing to their greater ease of collection, however, such specific duties now play a larger part than ever before in our tariff system.

Internal Revenue Duties. — Second in importance to customs duties are the internal revenue duties, which consist for the most part of excises. Excise taxes are usually paid by stamps placed upon the package of sale, although both in England and the United States the tax upon the commodity is supplemented by license duties upon dealers, which are also paid by stamps publicly exposed by the dealer in his place of business. In 1907 the internal revenue duties yielded $269,666,772, more than 80 per cent as much as the customs receipts, of which 58 per cent came from the tax on spirits, 19 per cent from the tax on tobacco, 22 per cent from the tax on fermented liquors, and the remainder from the tax on oleomargarine, playing cards, back taxes of a miscellaneous character, and penalties.

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[1] H. C. Adams, *Science of Finance*, pp. 409–410.

Excise taxes, like all taxes, have their grave defects. (*a*) Like 1 import duties, they must be levied upon articles of wide consumption to be productive; and as they are in a large degree shifted to the consumers, they frequently weigh more heavily upon the poor than upon the rich. (*b*) This regressivity is in- 2 creased by the fact that the taxes are specific, not ad valorem, so that the finer grades of domestic cigars, for instance, pay a lower rate of taxation than the cheaper goods. (*c*) In order to 3 prevent evasion of the tax, the government is compelled not only to watch, but partially to direct, the process of manufacturing at every step. Producers are required to give bond for the faithful observance of the law, to register raw materials which they buy, and to keep records of the stock on hand in accordance with book-keeping methods prescribed for them by the Internal Revenue Bureau. Such interference with private industry is an unfortunate but necessary part of excise taxation. 4 (*d*) Large systematized businesses bear such interference with less effort than small concerns, and in consequence our internal revenue system unquestionably exerts an influence in the direction of large-scale production, and possibly in the direction of monopoly. The license taxes particularly, which are adjusted only in the roughest way to the size of the business, unquestionably weigh more heavily upon the small than the large dealers. (*e*) Finally, it seems to be the almost universal opinion of com- 5 petent students that excise taxes exercise little influence upon the consumption of articles whose use is believed to be deleterious. An increased tax is as often followed by adulteration as by an increase of the price per unit.

Advantages

The advantages of the internal revenue duties, however, far outweigh their defects. (*a*) Like the customs duties, they yield 1. an enormous revenue; but although they do fall off somewhat in times of industrial depression, they are in ordinary periods regular and dependable, whilst in times of war they respond readily to increased rates. The increase of old duties and the imposition of new duties during the Spanish War, for instance, raised the receipts from $170,900,641 in 1898 to $273,437,162 in 1899. Many of the taxes yield a proportional increase almost as great as the increase in the rate of the tax, a rare virtue in excise taxation, as the rise of the burden usually cuts down the consumption. (*b*) From the administrative standpoint they are very inexpensive to collect, give rise to comparatively little fraud or evasion, and the few industries which they affect have now become so habituated to public inspection and control that the latter occasion little complaint. (*c*) Finally, it is to be noted that although excise taxes are regressive, the burden of the tax is shared by producer and consumer — not borne wholly by the latter — and the share borne by the producer varies directly with the element of monopoly or differential advantage in production. "Viewed as a whole, the internal revenue system is the most satisfactory part of our entire financial structure, state or federal. Its returns are fairly steady and reliable in times of depression. Its growth is automatic. It is imposed on articles the demand for which is tolerably inelastic. Its burden is not perceptibly felt. It is honestly and economically collected; and finally, it is abundantly capable of yielding additional revenue, should an unforeseen emergency arise."[1]

Taxes on Transactions. — In times of urgent need, as in the War of 1812, the Civil War, and the late war with Spain, the federal government has imposed taxes upon various sorts of transactions. Thus, the war revenue act of 1898 imposed stamp taxes on bank checks, telegrams, freight and express receipts, transfers of stocks and bonds, bills of exchange, etc. In 1899, the year after they were imposed, the stamp taxes yielded $43,837,819. The peculiar advantage of taxes on transactions is their quality of immediate productivity. As the figures just quoted show, they may be made to yield largely the very year they are imposed. Moreover, the government may make evasion almost impossible by lessening the legal protection and significance afforded by the documents not properly stamped. Another advantage is that they cost almost nothing to collect, as the taxpayer buys the stamp himself and places it upon the document. On the other hand, the general effect of such taxes is to impede business; and a check on business activity soon lessens the revenue from other sources.

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[1] Daniels, *Public Finance*, p. 148.

Income Taxes. — What shall be done to remedy the inelasticity and regressivity of federal taxation? The remedy most frequently advocated is that of a progressive income tax. Income taxes are not new in the United States. All through the colonial epoch earnings or produce taxes, *i.e.* taxes upon special forms of income, were common; between the Revolutionary War and 1870, particularly after 1840, many trials of a general income tax were made by the state governments; and in 1863, the federal government levied a general income tax, which was retained for about ten years. In 1894, the federal government again levied an income tax of two per cent upon incomes in excess of $4000, but the constitutionality of the act was promptly assailed, and the Supreme Court, by a majority of one, and after a change in the personnel of the court during the consideration of the case, reversed the earlier findings and held that the income tax could be levied only as a direct tax apportioned among the several states in accordance with their population. An apportioned income tax would be so obviously unjust that no one advocates its adoption. But President Roosevelt has recently recommended the income tax to the consideration of Congress and the American people, intimating rather broadly that a reasonable and judicially framed income tax might, if presented to the Supreme Court again, receive a more friendly interpretation.

The income tax as employed by the state governments has been a consistent and admitted failure, owing, it is stated by most authorities, to the inability of assessors to tax income at source and the consequent employment of self-assessment. John Smith, living in Massachusetts, receives his income from a mining company situated in Colorado; and as the Massachusetts assessors have no means of ascertaining Smith's ownership of the mining stock, they are forced to depend upon his answer in declaring the amount of his income. Yet it should be noted that the successful German income taxes are State taxes, resting largely upon declarations of the taxpayer and making comparatively little use of collection at the source. The success of these taxes in Germany is probably due to the fact that the rate is low, and the people law-abiding, even in matters of taxation.

A national income tax has many points of strength. (*a*) First of all it is to be noted that in England and Italy, in which the income tax has been given a trial, *experience has justified this form of taxation*, according to the majority opinion of those who have considered the matter.[1] (*b*) Moreover, it is especially noteworthy that income taxation *gains in economy and productiveness, and wins increasing approbation as the years go by.* This is in sharp contrast with the experience of our states in their use of the general property tax, which has grown more unjust and less workable, the longer it has been tried. (*c*) In the third place, income is as good, and perhaps better, than any other single measure of ability; so that income taxation seems to be peculiarly consistent with the ethical ideal that taxation should be in accordance with ability. (*d*) Similarly, there is perhaps no general or universal tax which, if properly enforced, would give less trouble because of shifting. (*e*) Most important of all from the fiscal standpoint is its admirable elasticity. It acts, or may be made to act, as the regulator of the entire revenue system. In times of prosperity, when consumption taxes are productive, a simple reduction of the rate prevents the accumulation of a harmful surplus. In times of stress, the revenues may be increased with the minimum disturbance of industry and capital by a simple increase of the rate. There can be no doubt that our federal revenue system needs a direct tax of such a kind as to exercise a minimum disturbing force upon industry, in order to keep a wholesome balance between receipts and expenditures.

The disadvantages of a general income tax, however, are great. (*a*) Its inquisitorial features are a fertile source of weakness. In our opinion, people should not resent taxation simply because it is inquisitorial; but if they do vigorously resent it, the fact constitutes an element of weakness in the tax which we must take into account, whether we sympathize with the feeling or not. (*b*) The chief objections to the income tax, however, have to do with its practicability. The federal income tax of 1894, for example, contained the following provisions, each of which, the reader will note, raises problems that either cause injustice or make room for evasion and escape, whichever way they are solved. In estimating the incomes of persons, assessors were directed to include: profits realized within the year from the sales of real estate purchased within the two years preceding, interest received or accrued upon all notes, bonds,[1] mortgages, or other forms of indebtedness; the amount of all premiums on bonds, notes, or coupons; money, and the value of all personal property acquired by gift or inheritance. On the other hand, assessors were instructed to allow taxpayers to deduct necessary expenses actually incurred in carrying on any business, occupation, or profession; interest due or paid out; taxes actually paid; losses actually sustained from fires, storms, or shipwreck and not compensated for by insurance or otherwise; and debts ascertained to be worthless. What check had the assessor upon the interest received on notes, bonds, and other forms of indebtedness? How could he ascertain the profits realized upon sales of real estate? Similar openings for an indefinite amount of fraud were given in the permission to deduct "necessary expenses," "interest due," "losses sustained," and "debts ascertained to be worthless." On the other hand, corporations were denied the right to deduct amounts carried to the account of depreciation or sinking funds, and they were compelled to deduct the tax of two per cent from *all dividends which they paid to their stockholders*, whether their stockholders had incomes of $4000 or less.

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[1] In France, also, there has for some years been an active agitation for a progressive income tax.

Many of these defects are not peculiar to the tax of 1894, but are inherent in the income tax principle. In estimating net income a vast number of deductions must be made from gross income, most of which are vague, and many of which are practically indeterminate. Money rent of land, for instance, is frequently less than true net income, because the property is appreciating in value and because in many countries, particularly in England, land ownership yields a very valuable but very intangible income in the shape of increased respect from one's neighbor. Income from mines, on the other hand, usually represents in large degree a return of capital invested, since the mine is being gradually exhausted; while income from personal exertions frequently represents a similar return of capital expended in costly education and long apprenticeship. From the administrative standpoint the income tax has almost as many weaknesses as the general property tax, the number of cases in which it is easier to estimate income than capital value being offset by an equal number of instances in which it is easier to estimate capital value than income.

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[1] It is important to note that taxes on the interest payments upon corporate bonds could not in the United States, owing to decisions of the federal court, be collected at the source, or from the corporation.

Progressive taxation is clearly needed somewhere in our fiscal system, state or federal; and the latter system unquestionably is sadly inelastic. But when all the obstacles are considered — court decisions, administrative weakness, the average American's hostility to inquisitorial taxation, the high cost of collection, the expense involved in combining progressive taxation with collection at the source, and the theoretical defects which the income tax shares with all other general taxes — it is doubtful whether the income tax should be depended upon to accomplish the necessary reforms. The true path of reform lies not in seeking any general tax either upon property, income, or any other simple basis; it consists in combining all principles in a harmonious system, using income as the basis when that is more practicable, capital value as the basis when it is easier to measure wealth than earnings, and resorting to consumption at perhaps a lower rate when both wealth and income are particularly difficult to determine.

Inheritance Taxes. — The recrudescence of the income tax project in recent years has undoubtedly been due to a desire to improve the distribution of wealth and reduce "swollen fortunes," but to allow swollen fortunes to accumulate wrongly and then to attempt to correct our mistake by taxing them 4 or 5 per cent is to palter with justice and to play at reform. There are many other remedies, more direct, more logical, more efficient. Among them may properly be included the regulation and taxation of inheritances.

When the first edition of this work was written in 1893, inheritance taxes were being collected in only five of the states, and so strong were the objections to its wide adoption that the author felt called upon to point out that unregulated collateral inheritance was an unjustifiable survival of the clan system that was being carried to ridiculous lengths at that time. Since the publication of the first edition, however, inheritance taxation has spread rapidly, being employed in at least thirty-two states in 1906, and with the spread of the tax has come a most significant development of progressive rating and taxation of direct as well as collateral heirs. To-day one never hears of the "inherent right" of decedents to control absolutely the disposition of their property in perpetuity, and the right of the legislature to regulate inheritance in behalf of the general social welfare is hardly disputed. Mr. Andrew Carnegie, for instance, advocates a rate of 50 per cent upon the estates of millionaires.

At the present time the inheritance tax is not very productive except in New York and Pennsylvania, which received in the fiscal year 1905–1906, $4,713,311 and $1,507,962, respectively, from this source. In all, about $10,000,000 a year is now received from this source in the various states employing the tax. The important fact is that the initial inertia and opposition have been overcome and the ground cleared for the really efficient use of this tax as a means of breaking up large fortunes and increasing the revenues. The new type of the inheritance tax is well illustrated by the Wisconsin law of 1903, which applies to direct as well as collateral heirs, and which graduates the rates according to relationship and the amount of the individual share, and not by the size of the estate. The highest rate in the Wisconsin tax — applying to shares in excess of $500,000 given to distant relatives and strangers — is 15 per cent.

Great as our progress has been in this respect, our legislation still falls short of the demands of common sense. Why should collateral inheritance apart from a will be allowed at all except among near relatives? Why should third cousins inherit from one another at all unless money is left by will? Are third cousins nearer to one than the town or city in which one has lived and where one has been able to acquire a fortune? The extent to which intestate collateral inheritance is carried is a survival of the sentiment of the time when people lived in clans, and is illogical in our day. Right and duty should be coördinated. Ought I to be compelled by law to support an uncle who is unable by incapacity to earn a livelihood? Then I should inherit from him; otherwise it does not seem clear that I should unless he leaves me property by will. So far as practicable the circle of legal duties ought, however, to be extended so as to include the circle of vital relationship. The property should go to the State in the absence of near relatives when no will is made. The clan is dead and forgotten; ordinarily there is neither acquaintance nor recognizable obligation between second cousins, not to mention twenty-second. Inheritances thus bestowed are pure gifts, wanton disturbances of existing abilities to use property. *The modern clan is society, and to it belong all claims to inheritance falling outside the circle of vital relations.* The enlightened English jurist, Jeremy Bentham, wished to restrict inheritance and extend escheat, and thus abolish taxation altogether, but this is going too far.

We have introduced the inheritance tax at this point — between the discussion of federal and state taxation — because some doubt exists whether it should be assigned to the federal or state governments. With two exceptions the arguments are almost all in favor of assignment to the state: (*a*) The inheritance tax is needed to effect the separation of state and local revenues. a reform earnestly advocated by most authorities. (*b*) Inheritance taxes should not be levied by both state and federal governments, *yet the latter cannot prevent the state governments from making use of the tax.* As it is easier for one jurisdiction to refrain from introducing the tax than for many jurisdictions to cease using it, the federal government should stand aside. (*c*) Furthermore, the natural machinery of assessment — the probate courts — can be employed by the state, but not by the federal government; and, in the long run, the cost of administering the tax would probably be much greater when used by the federal government.

The case for federal taxation rests upon the desirability of levying a very high rate upon large inheritances, and the possibilities of unjust double taxation under the state system. (*a*) Many persons would be disposed to move away from any particular state which imposed inheritance taxes as high as sound policy demands, but few would take up their residence entirely outside of the United States or transfer their investments to foreign countries; on this account. (*b*) State inheritance taxes upon personal property offer unusual temptations to double and multiple taxation. John Smith, domiciled in Pennsylvania, dies leaving 100 shares of stock in a New Jersey corporation, which shares are on deposit in a New York trust company. Under these circumstances Pennsylvania, New Jersey, and New York might all levy taxes upon these shares of stock. This kind of multiple taxation is very much more vicious than the double taxation which would result from state and federal taxation of inheritances.

The fact that the federal government cannot prohibit state inheritance taxes appears to be a conclusive argument in favor of state taxation. But unless the several states learn to restrain their legal powers of taxation voluntarily, and do away with multiple taxation by some species of agreement concerning the equities of the situation, an intolerable condition of affairs is likely to result which will add indefinite strength to the arguments in favor of a federal tax. Exclusive federal taxation through a constitutional amendment is unlikely, but not impossible.

State and Local Taxation

General Property Tax. — The key to the revenue system of our state and local governments, and by far the most important tax collected in the United States, is the general property tax, which supplied, in 1902, 82 per cent of the tax receipts of the state and local governments and 51 per cent of all taxes collected in the country, national, state, and local. The most important characteristic of this tax is suggested by the word "general," — *the tax is levied in theory upon nearly all property, real and personal, in the hands of the people.*

Though the administration of the property tax differs in many details among the states, it is the usual custom for assessors in each community to prepare complete statements of all kinds of taxable property owned by the people of the community. In some states the assessors receive from all residents sworn "lists" of property owned and subject to tax. By the terms of the law the property is supposed to be rated at its true, full value, though by the acknowledged practice of assessors and courts of review, the real rates vary widely from state to state, from community to community, and from individual to individual. On the basis of the property valuations thus made the state and local governments levy direct taxes at a rate fixed from year to year according to fiscal needs. The tax is then collected by local officers, and of the whole amount the portion levied by the county and state is passed on to the designated officers after each minor political division has set aside its share.

As yet few economists who have written upon the subject, and few state officers who have had to do with the administration of the tax, have ever been able to speak of it except in terms of the severest condemnation. Naturally, then, there is now a strong tendency to work away from this form of taxation. Some of the many serious faults which the general property tax has everywhere shown call for comment and explanation.

1. *Unjust Apportionment.* — The first of the defects of the tax appears in the apportionment of the state's share of the tax. Each community has a narrow, selfish interest in reducing its valuation that it may escape its just share of the tax. The same mean struggle is especially frequent between city and country districts. To correct the evil, boards of equalization are usually appointed, but experience has shown that such boards usually do their work in a most perfunctory way. Although earnest study of assessments may and sometimes does secure a substantially just apportionment between county and county, this equalization does not correct the glaring inequalities within particular counties, and even within single assessment districts.

2. *Inequality as between Realty and Personalty.* — In the second place, the general property tax has proved grossly inequitable in laying an undue proportion of its burden upon real property, allowing various forms of personal property to escape with a slight tax or with no tax at all. A secondary result of this inequality is that the rural districts bear a disproportionate burden, since the greater part of the tax-escaping personalty is owned by the wealthy citizens of our cities.

3. *Inequalities of City Assessments.* — Very similar to the preceding evils is the further injustice wrought by the tax through the disproportionate assessment of the pieces of real estate in cities. Thus, an investigation in St. Paul, Minnesota, covering over twenty-five hundred pieces of property worth in the aggregate more than five million dollars, showed that the average ratio of assessed to true value of parcels worth less than $5000

was 63 per cent, while the similar ratio for parcels worth more than $5000 was 56 per cent. A similar investigation made in Wisconsin and covering more than 16,000 pieces of property showed a glaring inequality between very small and very large properties (63 per cent and 47 per cent respectively of true value), but substantial uniformity in the long run for properties of medium size. Both investigations showed that unimproved real estate was ordinarily taxed at a very much higher ratio than improved property. In many districts, also, real estate owned by non-residents is taxed at a higher figure than real estate owned by residents.

4. *Temptation to Dishonesty.* — It follows from the evils already described that the general property tax leads to a shocking amount of dishonesty, perjury, bribery, and other forms of corruption. Indeed, as one writer has expressed it, "The general property tax has gone far toward making perjury respectable and even virtuous."

5. *Fundamental Theoretical Defects.* — But the most fundamental defect of the general property tax is found in the fact that it is an incongruous mixture of *real* and *personal taxes*. Real estate is taxed at its situs, irrespective of ownership or the tax-paying ability of the owner in a great majority of states. The personal obligation of the owner to support the government under which he immediately lives, is met practically everywhere by that part of the tax which falls upon personal property, personal property paying at the domicile of the owner.

This distinction between real and personal property is artificial, inequitable, and illogically applied. Personalty, as a measure of ability, ought to be accurately computed by offsetting liabilities against assets, so that the taxpayer would pay only upon net assets. Yet no state, with the possible exception of New Jersey, grants full and complete exemption of debts; only three states permit a subtraction of debts from all personalty; the rest either refusing any abatement for debts whatsoever or limiting the abatement to subtraction of debts from money or money and credits or other restricted classes of personalty. Moreover, nearly all the states manipulate their definitions of real property in the most discreditable manner, causing many kinds of double taxation. To take a single illustration: most states tax the stock of foreign corporations held by resident citizens, whether the corporation pays full taxes at its situs or not. Many of these states tax their own or domestic corporations at full value, thus indorsing the theory that a corporation should be taxed as a business unit where the business is carried on. Nevertheless, they attempt to tax the stock of foreign corporations when the stock is the only thing they can reach. Some states, though not a majority, actually tax both the shares of stock and the business of domestic corporations, and then wonder that the stockholders attempt to evade the inequitable obligations imposed upon them by law.

Reform of the Property Tax. — This brief outline of the evils connected with the general property tax furnishes us with the key to reform. By far the greatest reform that could possibly be accomplished would result from placing the work of assessment on a scientific basis, by appointing expert assessors under civil service protection, who would give their whole time to the business and hold their places during good behavior. In 1902 practically three fourths of the revenues collected under the general property tax came from the tax on real property. Now we shall undoubtedly keep the real estate tax. Nobody advocates its abandonment or believes that it will be possible to get along without it; and with trained assessors it would be possible to make a substantially fair assessment of real property. Yet even the assessment of real estate is in most places to-day wretchedly unequal. We spend a great deal of time thinking out ambitious fiscal reforms that will remedy the present system by revolutionizing it, overlooking the fact that the remedy for the deepest and widest evil lies within our reach, neglected and unavailing, not because we are ignorant of its potency, but because we lack the will resolutely to apply it.

At the same time, no assessor, however expert and well-paid, can ever be expected to assess all kinds of personal property with even approximate accuracy. To persist in the attempt to assess all the property of every person is simply to debase public morality and convince assessors that nothing short of divine wisdom will enable them to satisfy the requirements of the law. In short, the more intangible forms of personal property, if not all personal property, must be exempted from taxation, and the loss be made up by the introduction of simpler and more workable taxes. Probably the most practicable of such substitutes is the tax adjusted to the rental value of residences. Of course in individual cases such a tax would violate the rules of exact justice, but with suitable exemptions and proper adjustments it would be roughly equitable, and it would have the striking advantages of simplicity, practicability, and substantial certainty. The rental value of most property can be appraised with as much accuracy as the market value of real estate. Inasmuch as this tax would merely replace the present property tax upon the more intangible forms of personalty, it would not have to be heavy, and for this reason minor cases of inequality would not be very important.

The present property tax on business and commercial concerns, with its impossible requirements of stock valuations, taxation of book accounts, bills receivable, and credits generally, should be replaced by a business, license, or "ad valorem" tax, adjusted to income in the first two cases, or to capitalized income in the case of an "ad valorem" tax. The real estate and permanent improvements of business concerns might be separately taxed under the property tax, and a corresponding deduction made from the business tax, as is common in the taxation of banks and corporations in many states. We should then have, in place of the general property tax, a real tax on accumulated or realized tangible property; a personal tax on ability as measured by the rental value of dwellings, and business taxes upon earnings. Although the real tax would in appearance take no cognizance of mortgages or debts secured by the property and no account on the surface of the ability of the owner, it would not in reality wholly violate the canon of taxation according to ability. The man buying land on contract or subject to a mortgage, would take into account the fact that he would be called upon to pay taxes upon the whole value of the property, irrespective of debt or incumbrance, and the price would be adjusted accordingly. Or, if he mortgaged his land after he had acquired ownership, he would be indemnified to a certain extent for paying all the taxes, by receiving a lower rate of interest on his mortgage than he would be enabled to secure if the creditor were liable for taxes upon that part of the property covered by the mortgage. Real taxes, which take no cognizance of the financial status of the owner, are not inequitable when they are consistently applied and supplemented by a separate system of personal taxation.

All these taxes destined to take the place of the general property tax will probably, in the future, be assigned to the local governments. If necessary to provide enough revenue for the state, however, a small state tax could equitably be levied upon real estate, as the equalization of real estate assessments among the larger governmental divisions, such as counties, is a comparatively easy matter. Whether the state will be able to get along without taxes upon real estate, depends principally upon the productivity of certain corporation taxes, the proceeds of which belong logically to the state as opposed to the local governments. This absorption of corporation taxes by the state is already well under way in the more advanced commonwealths. In 1902, for instance, New York, New Jersey, and Pennsylvania, together raised $26,177,731 from special property and business taxes (practically corporation taxes), but only $12,055,851 from the general property tax. In that year Delaware made no use of the general property tax at all for state purposes, Connecticut raised only $164,520 from this source, and since that time New York has also abandoned general property as a basis of state taxation. However, the supersession of the general property tax is only true in the North Atlantic states, speaking generally. In all the states and territories in 1902, 53 per cent of the total tax receipts came from the general property tax, 34 per cent from special property and business taxes — principally on corporations — about 1.4 per cent from poll taxes, something over 6 per cent from liquor license taxes, and something less than 6 per cent from other licenses and permits.[1]

Corporation Taxes. — The exact way in which any corporation should be taxed depends upon a great variety of considerations, which vary from place to place and from time to time. In general, however, the following elements may be detected in the more progressive systems of corporation taxation: I. The incorporation fee, to cover the clerical expenses of registering corporations and the value of the privileges granted to every corporation, the most important of which is that of limited liability. This charge should be imposed on all joint-stock companies, should vary with the amount of bonds as well as the amount of stock authorized, and should be small, unless the state desires to restrict narrowly the incorporation of commercial enterprises. II. The franchise tax proper, to cover especially valuable privileges, such as the right to use the public streets or highways, granted to most public utility companies. This is essentially a contractual payment, a lease or royalty rather than a tax. It should be fixed in advance for a definite period at as high a figure or rate as possible, and when fixed, should not be tampered with by the state in justice to the corporation.[1] III. The general property tax or some equivalent, designed to impose upon the corporation a burden equivalent to that borne by the average taxpayer of the district. Inasmuch as good-will, business organization, and similar intangible assets are property, property taxes imposed under this head should cover not only tangible but intangible values as well, including the franchise when this does not revert to the state. Corporations which have received valuable franchises from the state may properly be called upon to pay *for the privilege* (under II) as well as *upon the privilege* (under III).

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[1] These proportions are based upon state receipts. If local revenues were included, the general property tax would appear very much more important.

This differentiation of what may be called the bases of corporation taxation should not be misunderstood. Many states merge two or even three of these charges in a single tax, and other states exempt savings banks, insurance companies, and other kinds of corporations from one or all of these obligations. in order to encourage thrift or foster the industry exempted.

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[1] However, where a long or perpetual franchise is given, provision should be made for the readjustment of the rental by arbitration or in some other equitable way. An illustration is found in the terms of the franchise under which the Pennsylvania railroad built a tunnel under the North River and erected its magnificent new station in New York City.

Such exemptions are often justifiable and socially helpful. But unless these separate elements are kept plainly in mind, injustice is almost sure to follow. To treat commercial corporations, which should pay Charges I and III, on the same footing as street railway or telephone companies, which should pay I, II, and III, is to penalize the commercial corporation for the benefit of the general public. To impose, or try to impose, Charge II upon all corporations, on the theory that all of them have received exceedingly valuable privileges, is to confuse general with special corporation privileges, and to pave the way for "corporation-baiting." Finally, although it is not necessary, we believe real progress will be hastened by observing these distinctions in practice as well as in theoretical analysis.

The third element in corporation taxes noted above requires further discussion. While a distinct effort is noticeable at the present time to make the tax burden upon corporations equal to that upon general property, and while this represents a distinct advance inasmuch as corporations in the past have escaped their due share of taxation; it is equally true that the movement has no logical stopping place. If the general property tax is certain to disappear, as most economists assert, there can be no permanency in a reform designed to equate the burden of taxation upon corporations and general property.

As we have seen, the general property tax will in time probably break up into a tax upon real estate, a tax upon persons, and a tax upon business. Corporation taxes will naturally fall in the last group. When we have differentiated these taxes, however, we shall soon learn that the business tax itself must be differentiated. Even at present we are forced to do this. We exempt building associations from taxation, give savings banks the benefit of a low rate, and impose unusually heavy taxes on saloons. This differentiation will be extended in the future. There is as much reason to impose specially heavy taxes upon express and sleeping-car companies, for instance, as there is to exempt churches and deal tenderly with mutual aid societies. This differentiation among businesses and corporations will require in many states a constitutional amendment, permitting the classification of persons and property for taxation. But that is a reform which, it is hoped, will be realized in the comparatively near future.

When all property is taxed where it lies, — irrespective of ownership, — and all persons where they live, — irrespective of the situs of their property, — then the taxation of business will stand, as it should, in a sphere of its own. Within that sphere businesses that can move easily to other states will of necessity be taxed lightly, as they are to-day. Businesses which derive special advantages from their environment, however, will pay a correspondingly heavy rate. Railways, to take a single illustration, will pay a higher rate than some businesses, a lower rate than some others, but in any event there will be no attempt to equate the tax upon railways with that upon property and persons, because the railway will pay upon its property as property, upon its business as business, and the owners of railway securities will pay in accordance with their ability as measured by rent or some similar index.

Business and License Taxes. — About 12 per cent of state tax receipts in 1902 came from licenses and permits, and taking the state and local governments together, the revenue from this source in 1902 amounted to seventy-five millions of dollars, of which over fifty-five millions came from liquor licenses. The high liquor license is now so common in most parts of the country that its social and fiscal importance needs little discussion. In most Southern states, however, there is an extensive system of business licenses, which supplement and partly replace the general property tax. The significance and importance of the business license have not hitherto been sufficiently appreciated. They are levied in theory under the regulative power of the government rather than the taxing power; but they have by extension and multiplication become taxes for the most part, as distinguished from sumptuary charges or payments for small privileges.

The license system of the South is characterized by many defects. Here and there traces of class feeling are discerned, as in the prohibitive licenses levied upon peddlers; and the rates employed are often illogical, inconsistent, and inequitable to the point of absurdity. In a few cases also, these taxes are high enough to bar certain occupations to the man with small capital. But on the whole they are among the best taxes employed by American commonwealths. They are easily and cheaply collected, very productive, cause little or no complaint, are not excessive as a rule, and exercise little or no influence upon prices. And in so far as they discourage the excessive multiplication of small retail shops they perform the useful service of preventing almost inevitable loss and bankruptcy.

The great significance of the business license is its expression of the truth that the general property tax in its simple form is unsuited to the taxation of business. Under the property tax, business in general is taxed upon its tangible assets, *i.e.* fixed plant and stock. One has only to think of the varying relationship to taxable capacity of the plant and stock of a manufacturer, a grocer, an express company, and a stock broker, to realize the grave injustice of this method of taxation. In countries of continental Europe, as in the southern part of the United States, a wide and generally satisfactory use is made of the business tax. Eventually we must come to the same thing in all parts of this country. But the tax should be adjusted to earnings on profits in a more effective way than is now done in the South.

Poll Taxes. — The poll tax is the oldest tax we have in this country, and throughout the greater part of the colonial period yielded more than any other source of revenue. It aroused bitter opposition in many commonwealths and was prohibited by the liberal constitution of Maryland at the beginning of the Revolutionary War; but it persisted in many of the states, and still remains the most important source of revenue, after the property tax, in a few of the Southern states. The tax still stands on the statute books of about one half of the states, and is nominally employed as a highway or local tax in a still larger number of commonwealths; but in many places little or no effort is made to enforce it. In Wisconsin, for instance, no attempt is made to collect the poll tax in more than half of the local taxing districts. The poll tax is not only difficult to collect, but is regressive and, when its payment is required as a prerequisite to the exercise of the suffrage, results in widespread political corruption. "No concealment need be made of the fact that the poll tax is used in Mississippi as a means of disqualifying the negro in national elections and controlling the vote in local elections."[1]

A BALANCED REVENUE SYSTEM

The main outlines of the distribution of taxes among the various governmental units have already been suggested: *to the*

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[1] C. H. Brough, in *Studies in State Taxation*, Johns Hopkins University Studies in Historical and Political Science, Vol. XVIII, p. 213.

federal government the excise and customs duties, with taxes on transactions in times of war or emergency and the taxes on interstate commerce hereafter discussed; *to the state governments* the inheritance tax, the more important corporation taxes, and some of the license taxes; *to the local governments* the tangible property tax, the occupation tax, such of the license and business taxes as are not taken by the state and federal governments, and taxes or royalties on municipal franchises. Public franchises or municipal management of public-service monopolies should be made in the United States, as in Europe, to pay a considerable part of the local expenses of government.

It will be observed that business and corporation taxes are to be divided among the several governmental divisions. The principles upon which this distribution should be made are very obscure and give rise to many important problems. The first and most important of these problems has to do with federal control of interstate commerce. Business, like property, has a natural situs for purposes of taxation, and companies engaged in interstate commerce should be taxed by or under the direction of the national government.

Federal Control of the Taxation of Interstate Commerce. — State taxation of companies engaged in interstate commerce gives rise to many problems. Railways may be used as an illustration. The enormous difference between the value of the physical property and the value of the stock and bonds or the capitalized earnings of railways has called public attention to the presence of vast intangible values in railway property. In order to tax these values — which the courts have decided to be "property" — the railway has to be assessed or valued as a unit — an exceedingly difficult and costly undertaking — and the share of this valuation belonging to the state in question has to be determined. This apportionment of values to state jurisdictions is not only artificial and difficult, but opens the way for much abuse. Each state is tempted to adopt the method which gives it the largest share of the assessed value; and the railway has not only to adapt itself to as many methods of assessment as there are states, but it is not unlikely to be much overtaxed in the process, unless it "goes into politics" with the avowed purpose of controlling legislation in its own interests.

Federal control would substitute a single assessment for many assessments, and one method of apportionment for the great variety of conflicting methods now in use. These essential reforms having been determined upon, the other problems of federal control [1] may be settled in a variety of ways. (*a*) The federal government might confine its work to valuation and apportionment, certifying to each state the valuation of the property assigned to it, to be taxed there at the same rate as other similar property. This plan, however, assumes that railways will continue to be taxed in accordance with the underlying principles of the general property tax. (*b*) Or the federal government might permit the physical property of railways to be taxed by the states in which it is situated and confine itself to taxes on the business as such, — a method in harmony with the general plan of business taxation suggested above. (*c*) Or it might wholly prohibit state taxation of either the property or business of interstate companies, although the constitutionality of such prohibition is particularly doubtful.

Assuming that one of the last two plans will be adopted, the federal government could (*a*) either refund the proceeds of the tax upon interstate business to the various states, in proportion to the amount of business done in each state or some other equitable method of apportionment; or (*b*) retain the revenue itself to be used in meeting emergency needs or in reducing the consumption taxes which now weigh so heavily upon the poor.

The constitutionality of the whole project of federal control is in grave doubt, although this aspect of the subject cannot be discussed here. But that Congress will eventually be forced to use all the power that it possesses to bring order out of the existing chaos seems as inevitable as it is desirable.

Separation of the Sources of State and Local Revenues. — Just as Congress should assume control, if possible, of the taxation of interstate railways, express, telegraph, sleeping car and steamship companies, so the state government should assume control of the taxation of inter-urban railways, telephone companies, and other concerns whose business is "state-wide" in scope. In recent years economists have urged the state to set aside enough such taxes for its own exclusive use, until — with such revenues as the state derived from inheritance, poll, and license taxes — it would be able to meet expenses without resorting to general levies upon property.

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[1] The desideratum is federal control of the taxation of interstate corporations, not necessarily federal taxation.

This programme is in the main admirable, and would bring to an end all those evils arising out of the efforts of local districts to escape state taxation by underassessment of property. But the project has dangers and defects of its own. In the first place it does not provide for the abolition of the general or personal property tax within the local districts, but permits the latter to persist in the attempt to tax stocks and bonds, money and credits, manufacturing plant and merchants' stocks. In our opinion the attempt to tax all kinds of property should be abolished by the state legislatures, without waiting for the agreement of the local governments.

In the second place, it would be unwise for the state government to monopolize corporation, inheritance, and license taxes merely to get upon an independent footing, and then leave the local governments to shift for themselves. Compared with local taxation, state taxation is really a matter of small importance, and the great problem of commonwealth finance is how the large cities, in particular, are to meet the enormous expenditures thrust upon them by the mere growth and congestion of population. Take the liquor license, for example. The saloon contributes very materially to the expenses of the city government. If the state were to take over the liquor license for its own use, it would deprive the city of one of its most logical and necessary sources of revenue. For similar reasons the state should be exceedingly careful in selecting the corporations upon which local taxes are not to be levied. To prohibit the taxation of railways by the local governments is wise, but to deprive them of the power to tax light, heat, and power companies, as was recommended by the California Commission on Revenue and Taxation, would be going too far in the average state.[1] In short, there is a logical and important connection between business or property and particular divisions of government. The true method is to ascertain the character of this relationship and assign the business or property, for purposes of taxation, to the proper governmental division. Then if the state has too much revenue, it may be apportioned to the local districts. If it has too little, the remainder may be raised by taxes upon the equalized value of real estate. Experience has shown that it is a comparatively easy matter to equalize real estate values among counties or similar divisions, with all the accuracy necessary for the equitable distribution of a light tax.

QUESTIONS

1. Why are the terms "direct" and "indirect" taxes particularly vague and equivocal?

2. Explain why no protection is given the home producer when the import duty is shifted upon the foreigner.

3. What is the greatest fiscal defect of American customs taxation? Can this defect be remedied?

4. Are excise taxes ethically justifiable? Do they materially check consumption when imposed upon alcoholic beverages and tobacco?

5. Do you know of any state which levies an income tax at the present time? Is the tax successful?

6. What arguments in favor of introducing a federal income tax can fairly be derived from European experience?

7. Should income representing not earnings but simple return of capital be taxed? Should income which is saved and immediately reinvested be taxed? Is it not double taxation to tax savings and the earnings from such savings as well?

8. The inheritance tax has been justified as a compulsory payment according to accidental or suddenly enhanced ability. Is this explanation logical?

9. Should corporations be taxed at the same rate as unincorporated business concerns? Should any definite relation between the two kinds of taxes be maintained?

10. Contrast the taxation of national banks in your own state with the taxation of trust companies, ordinary commercial or manufacturing corporations, and unincorporated business concerns.

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[1] Although the recommendation of the California Commission is doubtless justified for California by peculiar local conditions.

11. What difference is there between real and personal taxes? Are real taxes inequitable?

12. Are assessors elected or appointed in your own state? Do they require taxpayers to declare their personal property in great detail? Do the local assessment rolls contain separate figures for real estate and improvements? Is the property of non-residents specially designated?

13. Why is the general property tax particularly unsuited to the taxation of business and professional men?

14. Should the federal government, if it possesses the power, make the taxation of interstate commerce corporations uniform throughout the United States?

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BOOK IV

HISTORY OF ECONOMIC THOUGHT

Gide I

CHAPTER XXXVI

HISTORY OF ECONOMIC THOUGHT

The Development of Economic Thought. — If society were not progressive, history would be of comparatively little value. The study of the present would give us all the essential facts needed to understand society, and, problems once settled or institutions once explained, the work would not have to be done over again. All this, however, is the very contrary of the truth, so contrary, indeed, that one of the most difficult things that either the scientist or the statesman and reformer has to do is to overcome this idea that institutions are fixed. Society moves but slowly, to be sure, and its development is so much slower than that of the individual that he easily overlooks its changes altogether.

The relation is much like that of a tourist to a glacier. He climbs nimbly over its rigid mass with as little sense of underlying movement as when he climbs the mountain itself. He maps out its confines and its jutting peaks with as much accuracy as the rest of the landscape. He returns to-morrow and next year and sees no important changes, and so thinks his investigation is complete. But let a century elapse, and his map is wholly wrong. Another observer stumbling upon it wonders that a man could have made such blunders, and makes his map with painstaking exactness. But he may be as wrong as the first; indeed, he is as wrong unless he has discovered the cause of the discrepancy. *The glacier moves.* This slow but constant and resistless motion is the cause of every seam and crevasse, of the huge piles of bowlders at the sides and base, in short, of the great landmarks upon the map. The tourist may disregard it, but not the engineer who shapes the interests of a remote posterity.

The social sciences have a similar experience. Map succeeds map, each claiming that former maps are false, and assuming that conditions are fixed and that present and local explanations apply to all times and places, until finally the discrepancy is explained by the great law of social movement, which in turn becomes the object of investigation. When this movement is discovered, a new importance attaches to past explanations. While they may have made the mistake of supposing that their conclusions were of permanent and universal application, they contain much valuable observation, from which we may discover the laws of progress. Of course these maps of society have been imperfect — much more so than maps of glaciers. The facts are so complex, and men are so influenced by their particular environment, that no one man ever sees all the facts or arranges them in their true relations. Nevertheless, these observations have great value to us, and their onesidedness is usually apparent. Moreover, it is the very discovery of these limitations which makes our own thought broader and more comprehensive.

Our study of history thus has two phases, never separable in practice, though distinct in character, — the history of economic life and the history of economic thought. With the former our study began, and its importance has been easily felt. The latter was reserved until the close. No sound system of economic thought can be built up without taking account of past systems. The thought of the present must master the thought of the past if it would be better than the thought of the past.

Economic Ideas in the Ancient World. — The assertion is sometimes made, or at least the impression is frequently given, that no economic thought existed until Adam Smith. This impression is erroneous, and derives its plausibility from the fact that before Adam Smith economic subjects were treated either disjointedly and in a monographic way, or else in connection with ethics and political philosophy. But in treating economics in connection with ethics and politics, the older writers were merely following an instinctive method of dealing with economic truths, to which in a certain degree later writers are returning. Indeed, if we are to derive the most possible benefit from this brief survey of the development of economic thought, it is necessary to begin many centuries before Adam Smith, with the Greeks.

The Greeks. — The three writers among the Greeks most interesting to the economist are Plato, Aristotle, and Xenophon. Both Xenophon and Aristotle (or, more probably, some unknown disciple of Aristotle) have treatises upon the specific subject of Œconomics, but these are devoted principally to domestic economy, or the management of the household; and the more important economic ideas of the Greek writers are derived from their works which deal primarily with political and ethical subjects.

Plato describes a utopia in his *Republic.* His aim was to picture an ideal society in which the ills of society were to be corrected by a communistic State, and he included a communism even of wives and children, going farther than modern communists. The communism of Plato admitted, strange as it may seem, slavery, on which his social superstructure indeed rested as a base. The *Laws* of Plato is a more practical work. It aims to present not the best possible state, but only the second best, and deals to a greater extent with existing institutions.

Aristotle's principal work for us is the *Politics*, and it is indeed one of the most remarkable books in the world's history. Its influence is strongly felt to-day, for it was carefully studied by theologians of the middle ages, and through them entered into the thought and life of their time; and the thought and life of their time can be seen by the careful student to have entered in a thousand ways into the institutions of the twentieth century. Gladstone said the *Politics* of Aristotle was one of the three books from which he had learned most.

While Plato tacitly accepted slavery, Aristotle actively defended the institution of slavery, describing the slave as an "animated tool," and insisting that slave labor was necessary in order that the ruling classes might have the leisure for statecraft, art, and literature. Both Plato and Aristotle, also, fully appreciated the advantages of the division of labor, and understood, in consequence, that a certain amount of traffic and exchange are necessary. But both writers shared the common prejudice against trade and commerce; what one man gained in exchange, they thought, some other man lost; and to live by trade was in their eyes despicable. Aristotle, moreover, defended the institution of private property, and formulated surprisingly accurate ideas about money and its functions; but he condemned interest taking because, as he expressed it, money is barren.

Perhaps the most characteristic quality of Greek economic thought, speaking generally, is the thorough subordination of economic to ethical and political considerations. The object of life, in their view, was self-knowledge or self-realization, not the acquisition of riches, and they refused to regard wealth as an object of fundamental importance to either the individual or the State. Plato, indeed, in certain parts of his writings, defends the ascetic idea that human wants are to be satisfied, not by the improvement of productive processes, but by the repression of those wants themselves.

The Romans. — While the economic institutions of the Romans and the manifestations of their character in their economic life will repay investigation, they were not remarkable for independent thought. Their economic ideas, like their philosophical doctrines, were borrowed from the Greeks, and show the same general characteristics which the ideas of Plato and Aristotle do. Commerce and trade were held in contempt, particularly when carried on in a small way. Interest taking was by some thought to be "as bad as murder." Agriculture, on the other hand, was esteemed to be worthy of the noblest citizens, and a "return to the soil" in later Roman times was frequently recommended as a cure for the prevailing degeneracy. Pliny said the great estates, the *latifundia*, together with slave labor and the destruction of the small independent farmer, caused the downfall of Rome. Among other agricultural problems discussed by the Romans were those of intensive *versus* extensive culture, and slave *versus* free labor.

The jurists are, however, the most important of all. Whatever may be its imperfections, the Roman law, the *corpus juris civilis*, is the most remarkable legal system the world has ever seen and for training in careful and accurate statement is unsurpassed. Probably, as a training for economic studies, Roman law is among the most valuable branches of learning. It gives us also invaluable information about the economic institutions and measures of Rome.

Christianity. — To the economic thought of the time Christianity brought the revolutionary ideas of the honorableness of toil and the equality of men before God. The philosophy of the Stoics had brought analogous ideas to the attention of the restricted intellectual world of the day, but Christianity popularized these ideas. The clergy were encouraged to earn their livelihood by manual labor, and laymen were exhorted to free their slaves as soon as they had become Christians. With respect to money and trade, however, the effect of Christianity was to strengthen and impress the teachings of Aristotle.

The Middle Ages. — As the power of the Church increased, its economic ideas found more formal expression in the treatises of the schoolmen and mediæval theologians who expounded the church or canon law. Indeed, in the *corpus juris canonici* we have a definite system of economic thought which, while it was largely theoretical and intended originally for the ecclesiastical courts, came in time to be widely applied in secular affairs through the power of the confessional, the pulpit, and the wide jurisdiction of the ecclesiastical courts.

The doctrines of the canonists were derived, in part, from biblical injunctions against usury and the pursuit of wealth. The early Christian fathers frequently went so far as to condemn private property and set up the ideal of communism among the faithful. But this was only an ideal, and private property was early recognized as a necessary evil resulting from the fall of man. This ideal, however, was powerful enough to keep alive the doctrine that the maintenance of the poor was not a matter of philanthropy, but a binding obligation, in the words of Thomas Aquinas, the most distinguished canonist, a *debitum legale.*

Following the philosophers of Greece and Rome, and in sympathy with the scriptural attitude toward wealth, trade and commerce were regarded as greatly inferior to agriculture and handiwork as a source of livelihood. It was still believed that what the seller made by trade the buyer necessarily lost. As commerce developed, however, trade had to be recognized by the Church. In doing so, the canon writers formulated the doctrine of *justum pretium*, that every commodity has a *just price*, or value, which it is sinful for the seller to exceed. The modern trades-union doctrine of a *fair wage*, and the decisions of our courts concerning reasonable charges for gas, railway services, etc., illustrate the hold which ethical ideas of this sort have even at the present time. According to a very general idea, the just price of an article is the amount required to enable its producer to live in accordance with the accepted standard of living of his class.

The next most important economic doctrine of the canonists was the prohibition of usury, which originally signified any interest, not necessarily excessive interest, on a loan. The argument against interest was based upon scriptural strictures against usury, and upon Aristotle's argument that money is barren. Interest taking by the clergy had been prohibited as early as the fourth century; but in 1311, at the Council of Vienna, interest was prohibited "absolutely and universally," regardless of the civil law; and by the middle of the fourteenth century, the prohibition of interest had, in many places, been incorporated into the civil law. Little by little, however, the Church was forced to change its attitude, and in the middle of the sixteenth century (1545) a statute was passed in England legalizing an annual interest rate not in excess of 10 per cent. By this time the teachings of the canonists were fast giving way to the doctrines of mercantilism.

Economic Ideas in Modern Times. — Before the close of the sixteenth century, the temporal power of the Church had been undermined by the development of the great modern monarchies, and in economic thought religious considerations were replaced by political necessities. The problem of the Church — the universal establishment of the Kingdom of God upon earth — gave way to a newer problem — the maintenance and aggrandizement of rival states. The latter were in pressing need of ready money with which to build navies and support armies. How to increase public revenue and national wealth became the absorbing questions of the time.

Mercantilism. — The mercantile system, also called Colbertism, restrictive system, and commercial system, obtained from the early part of the sixteenth century until late in the eighteenth century, and its influence is still felt. Mercantilism is not, strictly speaking, the product of a school of political economists, but rather the name given to that economic policy of statesmen and to those detached economic views of writers which prevailed during this period. Most prominent among the statesmen who were mercantilists may be named Colbert, of France, Frederick the Great, of Prussia, and Cromwell, of England. Serra, an Italian, early in the seventeenth century, presented a moderate and systematic statement of their views in a work entitled *A Brief Treatise on Causes which make Gold and Silver abound where there are no Mines.* Thomas Mun, in England, a generation later, wrote a valuable treatise from the standpoint of the mercantilists, called *England's Treasure by Foreign Trade: or the Balance of our Trade the Rule of our Treasure*, while Sir James Steuart's *Inquiries into the Principles of Political Economy*, published in 1767, may be regarded as closing the development of the theory of mercantilism.

The principal characteristics of mercantilism — the efforts to increase the stock of precious metals within the country, to maintain a favorable balance of trade, to increase the population and foster manufactures, if necessary at the expense of agriculture — have been described elsewhere, and need not be repeated at this point. In attempting to apply these theories, however, the statesmen of this epoch instinctively turned to that instrument — the law — with whose use they were most familiar, and statutory restrictions were multiplied until mercantilism in one sense became practically synonymous with governmental interference. Toward the end of the eighteenth century, however, the commercial position of England, for example, became so strong that many of her industries found themselves crippled and confined by the very laws which had protected their infancy, and a reaction against mercantilism set in. The reaction, naturally, took the form of a movement in favor of agriculture and against governmental interference in economic and industrial affairs. In obedience to the needs of a new epoch, political economy lent itself to a propaganda in support of the doctrine of industrial liberty.

The Physiocrats. — The reaction against mercantilism found its first thorough and scientific expression at the hands of the French Physiocrats. Quesnay, a physician, Gournay, a merchant, and Turgot, the statesman, are their three principal authors. Politically, the physiocrats taught the doctrine of natural laws and rights, and as a consequence loudly proclaimed the maxim of *laissez-faire*, that is, that the government should not interfere with private enterprise. Economically, they exalted the importance of agriculture, and maintained that manufactures and commerce, which merely change the form or position of raw materials, are barren and unproductive (though useful when subordinated to agriculture); but that agriculture yields a net surplus — *produit net* — over and above the expenses of production. The physiocrats must thus be credited with originating the fertile economic doctrine of *surplus value* — a reward or premium appearing in production for which nature rather than man is responsible, and which is not required to induce men to put forth the effort necessary to produce wealth.

Many of the other doctrines of the physiocrats follow logically from the primacy which they accorded to agriculture. Since agriculture is the sole ultimate source of wealth, they maintained that the revenue of the State should be raised by a single direct tax — the *impôt unique* — levied upon land. All taxes must, they thought, in the end come out of rent anyway; and it was better that the landlord should pay them at once instead of waiting until they had passed through five or six hands and various profits had added to their amount. Naturally the physiocrats were ardent champions of free trade. They encouraged also the consumption of agricultural products, "in order that the *produit net* might be increased," and were generous champions of the importance and rights of the downtrodden peasantry. "*Pauvres paysans, pauvre royaume; pauvre royaume, pauvre roi*," was the motto of Quesnay's *Tableau Économique*, the most important treatise of the physiocratic school.

Adam Smith. — In 1776 Adam Smith published his *Inquiry into the Nature and Causes of the Wealth of Nations*, the most influential economic treatise ever written. "The life of almost everyone in England, perhaps of everyone," said Bagehot, "is different and better in consequence of it." His writings are found to be very similar to those of the physiocrats, but further developed and modified by his Scotch training and habit of mind. We find in

Adam Smith the doctrines of free trade, non-interference, and natural laws, yet all stated more guardedly. Although he does not regard agriculture as exclusively productive, he does show a partiality for agriculture, for in this branch of production, he says, nature labors along with man. He emphasized the importance of permitting each individual to follow his own self-interest as a means of promoting national prosperity, but he was not unmindful of the existence of altruistic motives in mankind. He accords full recognition to the motives of sympathy and kindness in his *Theory of Moral Sentiments*. But the net result of Smith's teaching was to strengthen and emphasize the *laissez-faire* trend of economic thought in his time. "Two conceptions," said Arnold Toynbee, "are woven into every argument of the *Wealth of Nations*, the belief in the supreme value of individual liberty, and a conviction that man's self-love is God's providence, that the individual in pursuing his own interest is promoting the welfare of all."

Economic Thought in the Nineteenth Century. — *The Classical School.* — The economic philosophy which prevailed during the first half of the nineteenth century is variously designated as the classical, Ricardian, English, or orthodox school. The earlier authors of this period were Jeremy Bentham (1738–1842), Thomas Robert Malthus (1766–1834), David Ricardo (1772–1823), James Mill (1773–1836), and John Ramsay McCulloch (1779–1864). In all of these writers we find the utilitarian philosophy, a deductive method, and the feeling that the outlook for the mass of the laborers was not a hopeful one. They elaborated economic principles, supposed to be good for all times and places, with the positiveness that one expects to find only in the mathematical or physical sciences.

Bentham's great work was the formulation and propaganda of the utilitarian philosophy, with its famous first principle or goal of social action — the greatest happiness of the greatest number.

Malthus's principal contribution, contained in his celebrated work, *The Theory of Population*, has already been discussed. While Malthus was himself a particularly charitable and benevolent friend of the working classes, his doctrine of population contributed more than any other single thing to make the political economy of the Classical School harsh and gloomy. It seemed to say that although wages were low they could be no higher, because if by some fortunate chance wages increased, population was sure to multiply until the wage was forced back to the old level. Poor relief and trades-union activities were both useless. The woe of the poor was due to their own lack of foresight, and could be removed by the poor alone. It was taught "that he who brought children into the world without adequate provision for them should be left to the punishment of nature." The responsibility of poverty was thus thrust upon the poor themselves; the rich were soothed with the assurance that they were not primarily responsible for the condition of affairs; and political economy was diverted from the consideration of its truest problem — the amelioration of poverty — to a discussion of the problems connected with capital and trade. The importance of the Malthusian proposition in economic philosophy in the first half of the nineteenth century can scarcely be exaggerated.

Ricardo was perhaps the first economist who adequately realized the importance of the problem of the distribution of wealth. The backbone of his distributive system was the Malthusian proposition. Ricardo believed that as population increased, society would be forced to resort to poorer and poorer soils in order to obtain food; and as this took place an increasing share of the product of industry would go to the landlord in the shape of economic rent. The division of the remaining product between labor and capital, in Ricardo's view, was determined largely by the "iron law of wages"; that is to say, the laborer would receive enough to purchase the necessaries and conveniences required to support him and his family in their customary style of living, while the residue would go to capital in the form of interest and profits. Profits were thus the "leavings of wages." With the passage of time and the settlement of a country, then, Ricardo's theory of distribution taught that rent would absorb a larger and a larger share of the product, wages about the same amount, while profits would dwindle both absolutely and relatively.

Ricardo's principal work is called *Principles of Political Economy and Taxation*. It was published in 1817, and in it

Ricardo elaborates, although he did not originate, the usually received doctrine of rent, which, modified and developed, is the one presented in this book. His ideas in general have a markedly pessimistic tinge. Rent, he said, is due to the niggardliness, not to the bounty, of nature; and his theory of distribution emphasized the natural diversity of interest between wage receivers and profit makers, and the antagonism between the interests of landowners and all other classes of society. Personally he was a kind man, and sincerely devoted to the advancement of humanity. Ricardo is remarkable for his extreme development of the abstract deductive method, and it is noteworthy that this development is not in the writings of a professional scholar, but in the work of one of the most successful bankers and brokers of his day. Socialists claim that developing still farther, or to their logical outcome, the teachings of Ricardo, they arrive at socialism.

John Stuart Mill, who lived from 1806–1873, closed one period in the development of economic science and began another in England. He started as a thoroughgoing follower of Ricardo, preserved the old doctrines of value, rent, and profits, and advocated *laissez-faire* as a general principle of political expediency. But in his later years Mill advocated the diffusion of property through the regulation and taxation of inheritances, indorsed by the appropriation by the State of the future unearned increment of land, and emphasized an important distinction between the production and distribution of wealth. "The laws and conditions of the production of wealth," he said, "partake of the nature of physical truths. There is nothing optional or arbitrary in them. . . . It is not so with the distribution of wealth. That is a matter of human institutions solely. The things once there, mankind, individually or collectively, can do with them as they like. . . . The distribution of wealth, therefore, depends upon the laws and customs of society. The rules by which it is determined are what the opinions and feelings of the community make them, and are very different in different ages and countries; and might be still more different, if mankind so chose."

The old and the new doctrines found in Mill's *Principles of Political Economy* do not harmonize, however, and the result is a work one of the most valuable of modern times, yet full of inconsistencies. Nevertheless, Mill will always be regarded as the culmination of the school usually known as the English deductive or classical school. Most of the work of the school was deductive; that is, they reasoned by singling out a few main facts of the external physical world and human nature familiar to all, and showing how men must act under the guidance of these laws. None of these economists pretended that the few laws which they considered were the whole of human nature, though they have sometimes been interpreted as if they did so; but they thought that the great multitude of motives which influenced men were too complex to be analyzed, and only one or two (chiefly self-interest) could "be reduced to any assignable law." It is plain that such a system of economics was highly ideal and never realized in actual life. The exceptions to its rules seemed more numerous than the cases to which the rules applied. Men could not long be content with an economics which told them one thing, while life constantly told them something different, and often very different. The result was a reaction toward a fuller recognition of the real facts of life.

Socialism. — Mill's change of heart resulted partly from his study of the socialist writers, who voiced the earliest and most thoroughgoing protest against the views of the classical economists. Modern socialistic doctrine may conveniently be dated from William Godwin's *Inquiry concerning Political Justice*, the first edition of which appeared in 1793. Godwin and the early French idealists and communists — Cabet, Saint-Simon, Fourier, etc., — began the attack on the ethical and political views of the orthodox political economy. Later the attack was continued in a somewhat more practical and realistic way by writers such as William Thompson and Robert Owen in England, Bazard and Louis Blanc in France, Rodbertus, Lasalle, and Marx in Germany. The foundation of classical political economy was *laissez-faire*, and its doctrinal structure was built around the system of private capitalistic enterprise. Socialism in essence was a thorough protest against *laissez-faire* and the private ownership of property. Pierre LeRoux used the word "socialism" in 1838[1] with the very purpose of expressing the antithesis of individualism.

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[1] It was used before this in England by the followers of Robert Owen.

In recent times, largely under the influence of Karl Marx, socialism has acquired a distinctive economic theory of its own. Marx, in his work on *Capital*, is apparently as abstract, deductive, and pessimistic as any of the classical school, but at bottom his whole theory was directed against those fundamental institutions of our social order which the classical economists took for granted. Marx has been credited by some as the discoverer of the materialistic or economic interpretation of history, and the whole tendency of the modern scientific socialists has been to emphasize the evolutionary standpoint.

The Sociologists. — Among other influences which broadened Mill's conception of economic science, and induced him to temper the rigor of his early teachings, were the works of Auguste Comte (1798–1857), the founder of modern sociology. Comte was especially severe in his criticism of the methods of the classical economists. He denied, in particular, that it is possible to develop a helpful science of economics distinct from history, ethics, and politics. Not only must these fields, he maintained, be cultivated in common, but the work must be done by *in*ductive, as distinct from *de*ductive, methods. To the classical assumption that a universal science of economics could be formulated, true for all times and places, he opposed the theory that there is in society an ordered change or evolution, and that the capitalistic stage, to which the classical economics conformed, must be studied in connection with the past and the future. Economics, he particularly insisted, cannot be divorced from history.

The Historical School. — This particular line of thought was taken up in Germany about 1850 by three young Germans, Roscher, Knies, and Hildebrand, who vigorously assailed the doctrines of the classical school. They went back to the old premises — self-interest, private property, demand, and supply — and traced out the historical development of economic life, coming to the conclusion that economic policies were not absolutely, but only relatively, true. They denied that economic science can discover laws which hold true for all times and all places. They emphasized the importance of the inductive method, of minute investigations into facts, and the study of legal institutions, custom, and ethics in their relation to economic life, while most members of the school entertained a strong sympathy for state policies of reform. Among the later writers of this group we may mention especially Gustav Schmoller.

Owing to the political ferment in Germany during the infancy of the historical school and the formation of the German Empire when this reaction against the classical economists was at its height, German political economy of the last half of the nineteenth century was impregnated with a striking nationalistic spirit which separated it even further from the cosmopolitanism of the English writers. The creation of a new state is almost invariably attended by the enactment of restrictive legislation, looking to the amalgamation of the diverse elements incorporated into the new state and the protection of its industries from foreign competition. *Laissez-faire*, under these conditions, is particularly difficult to maintain. The new national economy of Germany seemed to voice these political necessities. Like the classical economy of England, it was a creature of its own time and its own environment.

The Economic Optimists. — The classical English economists have often been called pessimists. This is too strong a term, inasmuch as they all saw hope for improvement. What can be said is that they developed pessimistic tendencies. Take it as we will, the Malthusian doctrine of population is tinged with pessimism, and so also are the Ricardian ideas of the action of nature as seen in the rent of land and in his scheme of distribution. In opposition to English economists, there was developed elsewhere, about the middle of the nineteenth century, a scheme of thoroughgoing economic optimism, and this was presented in a more unqualified way by Frédéric Bastiat (1801–1850), than by any one else; so much so that economic optimism at once brings to the mind of any economist familiar with the history of economic thought the name of Bastiat. An ardent agitator for free trade and a popular pleader for the existing order against the attacks of socialists and anarchists, he was the author of numerous pamphlets, and at the time of his death was engaged on a systematic treatise entitled *Economic Harmonies* (*Harmonies Économique*), of which the first volume only was completed. According to Bastiat, there is no such thing as economic rent. Consequently, the landowner is not the recipient of an unearned income. What we call rent is simply a return for past investments of capital. The profits on capital also, according to him, are simply a return on past labor, and relatively to wages, a diminishing return. For it is a peculiarity of labor stored up in those products which we call capital, that it continually diminishes in value as compared with present labor. In other words, wages are continually gaining relatively as compared with the profits of capital. Capital may gain absolutely on account of the increase in the amount of capital. Wages gain both absolutely and relatively. Value gives us the ratio of exchange between services. Economic gain is in proportion to economic service only that labor is progressively a gainer on account of the fact that man's present services (as seen in labor) increase in value as compared with man's past services as accumulated in capital. To give a concrete illustration, the handle of an ax would be capital — the result of stored-up past labor. It is likely to diminish in value continually when expressed in terms of present labor services, because men are continually learning how to make better and better ax handles.

As Bastiat denied the existence of pure economic rent in the Ricardian sense, he also denied the Malthusian theory of population, holding that no proof could be adduced of a tendency of population to press upon the means of subsistence. The evils that we experience come, according to Bastiat, from man's interference with natural harmonies. Nature works things out well, and this is the best of possible worlds if we would only let nature have her way.

Henry C. Carey, the American contemporary of Bastiat, held similar doctrines, and was apparently the more original man. If either one borrowed from the other, it must have been Bastiat. Probably neither one was guilty of any conscious plagiarism. Carey, however, was not so good a representative of economic optimism as Bastiat, because Carey believed that a protective tariff was a necessity, and this implied the necessity of social action to establish a system of economic harmonies. Carey's general views otherwise are treated below.

The writings of the optimists had a considerable influence for a time in Germany, where they were developed and applied with uncompromising logic by men like Prince-Smith, Faucher, and a considerable number of others who were influential in the press and practical affairs rather than in academic life. In the United States these writings have had a great deal of influence upon a number of early writers, among whom we may mention especially the late Arthur Latham Perry, long professor in Williams College, and Edward Atkinson, the well-known statistician and writer of Boston.

Early American Economists. — The reaction against the English economists, it is interesting to note, began earlier in the United States than in England or Germany. In the early part of the nineteenth century, emphatic dissent from the English doctrines was voiced by a group of publicists, among whom may be mentioned Alexander Hamilton, Daniel Raymond, Matthew Carey, Hezekiah Niles, and Frederick List. Hamilton's work and views are well known; Niles and Matthew Carey were pamphleteers of considerable note in the first third of the nineteenth century; and List, who, in the view of some authorities, planted the seeds of the German historical school, unquestionably obtained his distinctive nationalistic views about political economy in the United States, and first formulated them in his *Outlines of American Political Economy*, published in 1827.[1]

Daniel Raymond, however, of all the American writers noted, is the least known, and yet the author of the first American treatise on political economy in which a distinctively American system of economic thought is suggested. Raymond's first book, *Thoughts on Political Economy*, appeared in 1820; a second edition, under the title *Elements of Political Economy*, appeared in 1823, and the latter was reprinted with slight changes in 1836 and 1840. The essence of Raymond's system is found in his conception of wealth. Wealth, he maintained, is not an aggregate of exchange values but the opportunity to acquire the material comforts of life by labor. The English political economy, in Raymond's view, was a study of private as opposed to political or national economy. Raymond emphasized the distinction between individual and social wealth, and maintained that the laws of wealth laid down by Adam Smith were untrue of a nation conceived as a unit. The interests of particular individuals, or particular classes, he argued, do not always coincide with the interests of the nation as a whole, and the latter, he concluded, will be best advanced by developing all the national powers to their widest possible extent. He was thus a warm advocate of protection as opposed to *laissez-faire*.

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[1] List returned to Germany and was there a forceful writer and agitator for German unity, and is identified rather with the history of economic thought of Germany than with that of the United States.

Raymond's views had so impressed Matthew Carey that he offered to support a chair of political economy at the University of Maryland if the University would permit Raymond to fill it. Matthew Carey's son, Henry C. Carey (1793-1879), by far the most influential of the early American economists, was in like manner probably influenced by the teachings of Raymond. Carey was not only an earnest champion of protection, but an indefatigable critic of classical economic doctrines. He denied the truth of the Malthusian principle and the law of diminishing returns; objected to the Ricardian theory of rent; and maintained that the value of a commodity depends upon the cost of reproduction rather than the cost of production, as was laid down in the classical theory of value. Carey entertained a concept of wealth very similar to that of Raymond, and in some parts of his work adopted methods of investigation which brought him in close touch with the sociologists and the German historical economists. The keystone of his economic system is the doctrine of association. The increasing mastery of man over nature, or the increase of wealth, Carey held to be dependent upon the increasing efficiency resulting from a compact, homogeneous population, in which agriculture and manufacture are conducted side by side, in which the home market idea is carried out in the most complete way, and in which, to be brief, the association of industrial and social units is most intense and intimate. It can be readily understood why the economic philosophy of Carey was so inimical to free trade at every point.

The Austrian School. — The protests against the classical economists which we have been considering were directed largely against the narrow scope and deductive methods of the classical school. The Austrian economists represent a reaction not against their methods, but against the conclusions, and particularly against the theory of value of the classical school. The great contribution of the Austrian school is the marginal utility theory of value which has been most assiduously applied in economic analysis by a group of Austrian economists, among whom may be mentioned Professor Menger, Wieser, Sax, and Böhm-Bawerk. But the marginal utility theory of value was advanced almost simultaneously, about 1871, by the English economist Jevons, the Austrian economist Menger, and the Swiss economist Walras.[1]

The Austrians have been a leading force in producing what is not inaptly termed a renaissance in theory, although, as stated, they indorsed the deductive and abstract methods of the classical economists. The classical theory put the emphasis upon supply or the conditions of supply, maintained that cost of production determines value, and found the ultimate measure and explanation of value in the pain and sacrifice of labor. The Austrians maintain that utility, the pleasure or satisfaction derived from consumption, is the ultimate cause and measure of value; they emphasize demand as the English economists emphasized supply; and hold that value determines cost of production and not the cost of production, value. Capital, they conclude, receives its value from the finished product instead of giving value to that product. The work of this school has tended to put the consumer in the place primarily occupied by the capitalist as the center of discussion in economic theory.

Present Condition of Economic Thought. — The net effect of all these protests against the classical English economists has been to introduce a welcome catholicity into the methods of economic investigation. The historical school emphasized the evolutionary standpoint and the necessity of minute investigation of the facts of industrial life, while the work of the Austrians operated to strengthen and explain the necessary place of deduction in economic analysis. To-day the ordinary economist employs either method, or both, as the subject-matter demands, and the controversy about methods has become a thing of the past. With respect to the theory of value, neither supply nor demand, neither cost nor utility, neither the capitalist nor the consumer, is now said to exert a predominating influence in the determination of values. The Austrian school, it is now understood, supplied a needed corrective without revolutionizing the earlier theory of value. The Austrians themselves are seen to have been guilty of laying exaggerated emphasis upon the consumer's influence upon value and price.[1]

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[1] In reality the marginal utility theory had been explained many years before this by a number of obscure writers whose ideas, however, never affected the main current of economic thought.

So, similarly, with respect to the scope of economics. The attempt of the classical economists to isolate an "economic man" ruled entirely by an enlightened self-interest and unaffected by political, ethical, and humanitarian impulses, is recognized to have been a mistake. But economics has never given itself to a complete study of politics or ethics. It considers ethical and political phenomena when these cannot be disassociated from economic phenomena, but insists, nevertheless, upon the separation of economics from ethics, politics, and sociology. We recognize that these fields are not wholly or clearly differentiated, but we recognize just as clearly that a division of labor is necessary if accurate results are to be achieved. Furthermore, this division of labor is showing itself progressively within the limits of economics itself, as it has shown itself in all growing sciences. Indeed, the present condition of economic thought was so accurately predicted by Professor Jevons in 1876, that his words — written in the midst of the controversy among the adherents of the deductive, historical, mathematical, and sociological methods of investigation — may well be employed to picture the condition of the science of economics as it exists to-day: —

"As I have previously explained, the present chaotic state of economics arises from the confusing together of several branches of knowledge. Subdivision is the remedy. We must distinguish the empirical element from the abstract theory, from the applied theory, and from the more detailed art of finance and administration. Thus will arise various sciences, such as commercial statistics, the mathematical theory of economics, systematic and descriptive economics, economic sociology, and fiscal science. There may even be a kind of cross subdivision of the sciences; that is to say, there will be division into branches as regards the subject, and division according to the manner of treating the branch of the subject. The manner may be theoretical, empirical, historical, or practical; the subject may be capital and labor, currency, banking, taxation, land tenure, etc., — not to speak of the more fundamental division of the science as it treats of consumption, production, exchange, and distribution of wealth. In fact, the whole subject is so extensive, intricate, and diverse, that it is absurd to suppose it can be treated in any single book, or in any single manner."[1]

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[1] And there is reason to believe that their analysis was based in some degree upon a faulty psychology.

QUESTIONS

1. What were the economic doctrines of the canonists?
2. How did the physiocrats differ from the mercantilists?
3. What is Adam Smith's relation to the physiocrats?
4. Characterize the "classical" school.
5. How did Ricardo use the Malthusian proposition?
6. In what respect is Mill's thought a turning point in economic theory?
7. How is the socialist thought related to the theories of the classical writers?
8. In what did the protest of the historical school against the classical school consist?
9. Characterize the economic thought of Bastiat?
10. What are the characteristics of the Austrian school?

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Ashley, W. J. *Introduction to English Economic History and Theory.*

Cannan, E. *History of Theories of Production and Distribution.*

Ingram, J. K. *History of Political Economy.*

Palgrave, R. H. I. *Dictionary of Political Economy* (articles on various economists).

Price, L. L. *History of Political Economy in England.*

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[1] Jevons, *Theory of Political Economy*, 3d ed., pp. xv–xvi.

APPENDIX A

STATISTICS OF PUBLIC EXPENDITURES

It will be observed that the payments in table II are larger than in Table I. This is because, as regards Table I, subtractions have been made of certain items as follows: —

(1) Payments on account of the public debt;
(2) premiums on bonds purchased and exchanged;
(3) internal revenue and customs rebates and other funds;
(4) interest on bonds of Pacific railroads;
(5) District of Columbia expenditures (agency account);
(6) Soldiers' Home permanent fund (transfer).

The exclusion of these payments removes from the aggregate the greater portion of those which under the census classification are designated *temporary* and *transfer*.

Table III, giving the expenditures of the principal divisions of the United States, helps us to understand the activities of the various main parts of the United States as revealed in public expenditures; and it also helps us to understand the character and degree of evolution in the various parts of the country, and the height to which civilization has ascended in these parts, although here, again, the student must be cautioned that in public expenditures we have only one of many indications of the nature and growth of civilization; yet one of the most important.

North Atlantic division includes: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut.

Southern North Atlantic includes: New York, New Jersey, Pennsylvania.

Northern South Atlantic includes: Delaware, Maryland, District of Columbia, Virginia, West Virginia.

Southern South Atlantic includes: North Carolina, South Carolina, Georgia, Florida.

Eastern North Central includes: Ohio, Indiana, Illinois, Michigan, Wisconsin.

Western North Central includes: Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

Eastern South Central includes: Kentucky, Tennessee, Alabama, Mississippi.

Western South Central includes: Louisiana, Arkansas, Indian Territory, Oklahoma, Texas.

Rocky Mountain includes: Montana, Idaho, Wyoming, Colorado, New Mexico.

Basin and Plateau includes: Arizona, Utah, Nevada.

Pacific includes: Washington, Oregon, California.

TABLE I

SUMMARY OF PAYMENTS FOR EXPENDITURES OF THE NATIONAL GOVERNMENT, STATES AND TERRITORIES, COUNTIES, CITIES, AND OTHER MINOR CIVIL DIVISIONS OF CONTINENTAL UNITED STATES: 1902

GROSS PAYMENTS	
Total	$1,773,977,222
National government	617,530,137
States and territories	185,764,202
Counties	197,365,827
Cities containing over 25,000 inhabitants	468,637,749
Cities containing over 8000 and less than 25,000 inhabitants	82,596,423
Other minor civil divisions (estimated)	222,082,884
Duplications amount to	$69,646,262
Payments less duplications	$1,704,330,960

TABLE II

PAYMENTS AND BALANCES OF THE NATIONAL GOVERNMENT FOR THE YEAR ENDING JUNE 30, 1903

Total payments and balance on hand at close of year	$2,566,878,140
Balance on hand at close of year	1,310,006,031
Total payments	1,256,872,109
Payments for :	
Congress	4,764,578
Library of Congress	590,668
Executive departments	13,822,313
Foreign intercourse	3,204,522
Collection of internal revenue	4,496,479
Customs service	10,210,747
Government Printing Office	5,917,410
Judiciary	7,350,740
Territorial governments	261,591
Buildings and sites (outlays)	6,610,475
Military establishment	98,286,299
Naval establishment	55,950,930
Increase of the navy (outlays)	26,667,104
Life-saving service	1,746,841
Light-house establishment	4,537,316
Public Health and Marine-Hospital Service	1,356,456
Harbor and river improvements (outlays)	19,590,082
Indians	12,935,168
Pensions	138,425,646
Bureau of Animal Industry, Weather Bureau, and Agricultural Investigation	4,536,426
Interest on public debt	28,556,169
Postal service, including Post Office Department	139,134,510
Mints and assay offices	1,456,221
Bureau of Engraving and Printing	2,782,348
Public debt	605,641,539
Premiums on bonds purchased and exchanged	10,907,120
Internal revenue and customs rebates and other refunds	16,881,955
Interest on bonds of Pacific railroads	180
Grants to District of Columbia	3,415,999
District of Columbia expenditures (agency account)	5,168,039
Soldiers' Home permanent fund (transfer)	743,139
Miscellaneous	20,923,099

TABLE III

DIVISIONS OF THE UNITED STATES	PAYMENTS FOR EXPENDITURES				
	TOTAL PAYMENTS FOR EXPENDITURES	GENERAL GOVERNMENT			
		Total[1]	Legislature and Legislative Offices	Chief Executive Offices[2]	Law Offices and Accounts
Continental United States	$1,156,447,085	$123,761,897	$7,301,063	$2,552,847	$7,176,691
North Atlantic division	499,671,932	41,774,892	3,181,240	1,026,819	4,750,145
Southern North Atlantic	357,036,091	30,918,712	2,055,184	681,277	4,026,191
South Atlantic division	78,976,567	6,438,098	678,874	184,784	192,359
Northern South Atlantic........	45,321,811	3,664,067	487,971	96,316	130,575
Southern South Atlantic	33,654,756	2,774,031	190,903	88,468	61,784
North Central division	381,467,181	52,300,195	2,153,066	866,104	1,342,714
Eastern North Central	244,676,913	32,275,180	1,468,652	601,233	874,537
Western North Central	136,790,268	20,025,015	684,414	264,871	468,177
South Central division.........	97,081,787	10,346,790	503,501	241,668	447,589
Eastern South Central.........	45,293,356	4,544,790	204,883	116,201	279,760
Western South Central	51,788,431	5,802,000	298,618	125,467	167,829
Western division...............	99,249,618	12,901,922	784,382	233,472	443,884
Rocky Mountain	26,392,768	4,439,088	232,139	60,247	86,537
Basin and Plateau	7,019,300	1,281,077	37,614	32,446	45,624
Pacific......................	65,837,550	7,181,757	514,629	140,779	45,624
Hawaii[3]	2,913,391	345,094	79,173	5,318	24,179
Porto Rico[3]	3,902,735	629,523	23,901	98,107	26,749

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[1] Total expenses of "general government" exceed the sum of items for offices included under that head by those of counties and of minor civil divisions for which no details were estimated.

[2] Not included in continental United States.

[3] Including office of Secretary of State.

TABLE III—(*Continued*)

DIVISIONS OF THE UNITED STATES	PAYMENTS FOR EXPENDITURES				
	General Government		Courts	Military and Police	Fire Department
	Finance Offices and Accounts	Miscellaneous General Government			
Continental United States	$10,725,828	$18,004,135	$39,934,903	$54,551,829	$38,185,709
North Atlantic division	5,591,962	10,225,882	14,624,990	30,872,403	17,869,100
Southern North Atlantic	4,233,983	7,348,809	11,291,941	24,099,274	12,413,332
South Atlantic division	827,188	914,820	3,414,958	4,042,937	2,268,124
Northern South Atlantic	550,076	649,128	1,770,854	2,989,815	1,300,709
Southern South Atlantic	277,112	265,692	1,644,104	1,053,122	967,415
North Central division	2,750,411	4,311,419	11,921,692	14,440,898	13,033,142
Eastern North Central	1,752,383	2,932,363	6,534,053	10,328,881	9,420,028
Western North Central	998,028	1,379,056	5,387,639	4,112,017	3,613,114
South Central division	856,072	857,838	6,140,666	2,241,833	2,363,998
Eastern South Central	429,278	445,994	3,138,545	1,223,741	1,125,596
Western South Central	426,794	411,844	3,002,121	1,018,092	1,238,402
Western division	700,195	1,694,176	3,832,597	2,953,758	2,651,345
Rocky Mountain	146,242	656,262	1,363,798	701,350	619,103
Basin and Plateau	71,593	113,360	368,154	161,582	100,517
Pacific	482,360	924,554	2,100,645	2,090,826	1,931,725
Hawaii[1]	110,027	126,397	100,955	198,949	....
Porto Rico[1]	213,940	58,351	205,278	396,390	7,994

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[1] Including office of Secretary of State.

TABLE III—(*Continued*)

DIVISIONS OF THE UNITED STATES	PAYMENTS FOR EXPENDITURES				
	Miscellaneous Protection to Life and Property	Health Conservation	Sewers, Drainage, and Other Sanitation	Street Lighting	Other Highway Expenditures
Continental United States	$3,735,570	$9,460,520	$26,417,947	$22,919,293	$93,861,697
North Atlantic division	2,284,715	4,290,984	15,766,243	12,695,265	37,281,686
Southern North Atlantic	1,552,961	3,041,155	9,799,507	8,742,945	25,436,242
South Atlantic division	213,992	686,924	1,683,158	1,429,799	6,868,324
Northern South Atlantic	174,451	424,165	1,161,982	956,896	2,977,289
Southern South Atlantic	39,541	262,759	521,176	472,903	3,891,035
North Central division	719,378	2,974,428	5,480,488	6,547,380	32,495,618
Eastern North Central	396,635	1,897,783	4,098,154	4,521,837	19,570,677
Western North Central	322,743	1,076,645	1,382,334	2,025,543	12,924,941
South Central division	111,374	801,886	2,719,285	1,078,207	8,383,102
Eastern South Central	40,854	445,731	430,041	566,126	4,150,927
Western South Central	70,520	356,155	2,289,244	512,081	4,232,175
Western division	406,111	706,298	768,773	1,168,642	223,809
Rocky Mountain	59,686	235,324	142,438	322,330	1,889,472
Basin and Plateau	7,743	51,837	44,098	76,448	481,591
Pacific	338,682	419,137	582,237	769,864	6,461,904
Hawaii[1]	....	232,514	44,712	....	707,401
Porto Rico[1]	....	132,416	29,973	39,090	862,370

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[1] Including office of Secretary of State.

TABLE III—(*Continued*)

DIVISIONS OF THE UNITED STATES	PAYMENTS FOR EXPENDITURES				
	Charities	Insane	Penal Institutions	Education	Parks and Recreation
Continental United States	$58,400,423	$23,021,207	$24,426,029	$281,219,278	$14,625,414
North Atlantic division	27,765,577	9,767,640	8,668,308	97,348,802	5,665,193
Southern North Atlantic	18,619,865	6,683,160	5,584,222	73,616,556	3,303,749
South Atlantic division	4,710,060	2,040,835	1,743,072	19,850,327	546,873
Northern South Atlantic	2,249,282	1,080,533	861,698	11,973,233	481,050
Southern South Atlantic	2,460,778	960,302	881,374	7,877,094	65,823
North Central division..........	17,908,510	7,398,376	7,747,137	103,900,992	7,407,045
Eastern North Central..........	11,066,154	5,252,767	4,501,221	66,578,585	1,908,521
Western North Central	6,842,356	2,145,609	3,245,916	37,322,407	5,498,524
South Central division..........	3,902,877	2,073,893	3,794,386	29,237,426	210,028
Eastern South Central..........	2,158,882	1,158,332	1,750,428	13,930,039	123,925
Western South Central	1,743,995	915,561	2,043,958	15, 07,387	86,103
Western division	4,113,399	1,740,463	2,453,126	30,881,731	806,275
Rocky Mountain..............	1,070,731	310,930	746,112	7,997,374	105,052
Basin and Plateau	256,636	139,071	249,760	1,823,263	12,107
Pacific......................	2,786,032	1,290,462	1,457,254	21,061,094	689,116
Hawaii[1]	60,334	38,118	76,886	392,493	38,613
Porto Rico[1]	216,168	....	121,943	824,478	856

[1] Including office of Secretary of State.

TABLE III—(*Continued*)

DIVISIONS OF THE UNITED STATES	PAYMENTS FOR EXPENDITURES					
	AGRICULTURE	INTEREST	INDUSTRIES	INVESTMENT EXPENSES	OUTLAYS	ALL OTHER
Continental United States	$3,239,660	$78,902,297	$32,054,394	$155,846	$208,475,012	$19,098,160
North Atlantic division	1,430,264	38,389,638	15,402,607	79,137	104,862,398	12,822,090
Southern North Atlantic	1,195,162	24,966,004	11,019,641	67,516	80,760,943	3,923,204
South Atlantic division	210,608	7,140,668	4,415,077	4,933	10,361,641	906,159
Northern South Atlantic	95,068	4,392,782	1,544,642	3,536	6,799,575	420,184
Southern South Atlantic	115,540	2,747,886	2,870,435	1,397	3,562,066	485,975
North Central division	938,150	19,765,525	8,761,824	41,175	64,417,584	3,267,644
Eastern North Central	343,402	12,100,821	6,885,700	40,314	45,001,224	1,954,976
Western North Central	594,748	7,664,704	1,876,124	861	19,416,360	1,312,668
South Central division	108,655	7,972,282	1,303,260	30,561	13,218,096	1,043,182
Eastern South Central	45,836	4,137,797	653,405	29,777	5,355,143	283,441
Western South Central	62,819	3,834,485	649,855	784	7,862,953	759,741
Western division	551,983	5,634,184	2,171,626	40	15,615,293	1,059,085
Rocky Mountain	208,752	2,024,987	226,705	....	3,461,731	467,805
Basin and Plateau	135,960	680,263	151,590	....	949,298	48,305
Pacific	207,271	2,928,934	1,793,331	40	11,204,264	542,975
Hawaii[1]	18,104	50,780	226,655	....	....	381,783
Porto Rico[1]	....	75,570	100,671	....	186,517	73,489

[1] Including office of Secretary of State.

APPENDIX B

SELECTED BIBLIOGRAPHY, COURSES OF READING, AND SUBJECTS FOR ESSAYS, DISCUSSIONS, AND DEBATES

Some teachers of political economy supplement text-book work by assigned reading chiefly; others rely on questions, exercises, and brief reports in connection with specific subjects taken up in the class; others again prefer that the student write one or two longer essays for the whole course. In this book specific references, questions, and exercises have been provided in connection with each chapter, and in this appendix are given subjects for the longer essays. In most cases it will be desirable to limit the topics suggested, and each subject will suggest a number of similar ones. Usually the teacher will desire to make his own list adapted to the needs of his students, but the list here given will in many cases be of convenience where classes are large.

On methods of teaching political economy, the following references will be found of help: —

Bullock, C. J. *Education*, Vol. XI, p. 539.
Clow, F. *Economic Studies* (American Economic Association), 1899.
Dixon, F. H. *School Review*, January, 1898.
Ely, R. T. *Educational Review*, Vol. 20, p. 152.
Hoxie, R. F. *Journal of Political Economy*, Vol. IX, p. 481.
Laughlin, J. L. *The Study of Political Economy*, New York, 1885; also *Journal of Political Economy*, Vol. 9, p. 384, and *Atlantic Monthly*, May, 1896.
Commons, J. R. *The Inland Educator*, December, 1895.
Thurston, H. W. *School Review*, Vol. 4, p. 604.

SUBJECTS FOR ESSAYS, DISCUSSIONS, AND DEBATES

1. Theoretical

Is the Supply of Land Limited?
Is Abstinence one of the Costs of Production?

Possible Substitutes for Competition.
One Hundred Definitions of Capital.
Can Mere Mass of Capital be the Basis of Monopoly Power?
The Wage-fund Theory.
The Balance of Trade Theory.

2. BIOGRAPHICAL AND PERSONAL

John Law and his Schemes.
Robert Owen.
Rousseau and his Social Philosophy.
Sketch of the life of Adam Smith.
Sketch of the life of J. S. Mill.
Richard Cobden.
Ferdinand Lasalle.
Josiah Warren.
Types of Modern Business Men.

3. MONEY

The Production of Gold since 1850.
The *Per capita* Supply of Money in the United States.
The Campaign of 1896.
The Latin Monetary Union.
The International Monetary Conferences.
Substitutes for Gold as a Standard of Value.
Illustrations of Gresham's Law.
Paper Money in the Colonies.
The Establishment of the United States Coinage System.
French Assignats.

4. BANKING

Failures among our National Banks.
The New York Safety Fund System.
Insurance of Bank Deposits.
Branch Banking.
Asset Currency.
The Origin of our National Banking System.
The Control of Trust Companies.
The Bank of England.
The Bank of France.
The German Imperial Bank.
The Canadian Banking System.
Usury and Usury Laws.
Postal Savings Banks.

5. The Labor Movement

Old Age Pensions.
Compulsory Arbitration.
Employers' Liability for Accidents.
Employment Offices.
Shall the Boycott be Legalized?
Should Injunctions be prohibited in Labor Disputes?
Should Trades Unions enter Politics?
The Statistics of Strikes.
The Trend of Wages.
Insurance against Unemployment.
Employers' Associations.
The Premium System of Wage Payment.
Trade Agreements.
The Business Management of the . . . Union.
Should Trades Unions Incorporate?
The Workingman's Attitude toward Piece Work.
The Present Status of Child Labor Legislation.
The American Federation of Labor.
Systems of Apprenticeship.
Industrial Education.
Eight-hour Legislation.

6. Insurance

The Beginnings of Insurance in England.
Life Insurance in the United States before 1880.
Varieties of Life Insurance Policies.
Mortality Tables.
Joint Life Insurance.
The Surplus of Life Insurance Companies.
Surrender Values.
Investments of Insurance Companies.
Expense Loading in Life Insurance Premiums.
State Insurance in New Zealand.
Insurance Legislation in the State of New York.
Fraternal Insurance.
Industrial Insurance in the United States.
Workmen's Insurance in Germany.
Employers' Liability Insurance.
Workmen's Collective Insurance.
Rate Making in Fire Insurance.
Marine Insurance.

7. TRANSPORTATION

History of the Erie Canal.
Economic Significance of the Panama Canal.
The Improvement of the Mississippi River.
The Granger Movement.
Railroad Pools.
Federal Safety Appliance Legislation.
Financial History of the . . . Railway Company.
Present Status of Railway Consolidation.
Methods of Railway Consolidation.
Uniform Freight Classifications.
Rate-making Powers of State Railroad Commissions.
The Interstate Commerce Act and its Amendments.
The Long and Short Haul Clause.
The Basing Point System.
Group Rates.
Expense as a Basis for Rate Making.
The Northern Securities Company.

8. CORPORATIONS

Varieties of Stocks and Bonds.
The Prices of the Stocks and Bonds of the . . . Company since 1900
Federal License or Federal Incorporation?
History of the Standard Oil Company.
The Organization of the United States Steel Corporation.
The Control of Corporations in Massachusetts.
The International Mercantile Marine Company.
The Basis of Capitalization.

9. MONOPOLIES AND TRUSTS

Monopolies in Ancient and Mediæval Times.
Monopolies in Seventeenth Century England.
The History of the Whisky Trust.
Control of Raw Material as a Source of Monopoly Power.
The Economies of Combination.
Effects of Trusts on Prices.
The Tariff and the Sugar Trust.
Trusts in England at the Present Time.
German Cartells.
Patents as a Basis of Monopoly Power.
The Telegraph in England.
Concentration in Banking.

10. INTERNATIONAL TRADE

Customs Duties in Colonial Times.
The Dingley Tariff Act.
Customs Regulations of the Treasury Department.
History of the Tariff on Wool.
The Australian Tariff Policy.
The Revival of Protectionism in England.
The Tin Plate Industry.
The Civil War and the Tariff.
A Tariff Commission.
Reciprocity.
Sources of our Leading Imports.
The Destination of our Leading Exports.

11. PUBLIC FINANCE

Federal Income Taxes.
Taxation of Inheritances in the United States.
The Assessment of Real Estate.
Franchise Taxes in New York.
License Fees in the Southern States.
Taxation of Railroads in the United States.
The Taxation of Banks.
The Taxation of Insurance Companies.
Mortgage Taxation.
Segregation of State and Local Revenues.
Federal Expenditure for Army and Navy.
Our Pension System.

12. MISCELLANEOUS

The Attempt in Germany to Control Stock Exchange Speculation.
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